

# The Mining Journal.

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1519.—Vol. XXXIV.

LONDON, SATURDAY, OCTOBER 1, 1864.

(WITH SUPPLEMENT) (STAMPED.....SIXPENCE. UNSTAMPED.....FIVEPENCE.)

### MR. JAMES CROFTS, SHAREBROKER, No. 1, FINCH LANE, CORNHILL. (Established 22 years.)

Mr. Crofts transacts business, in the way of PURCHASE or SALE, in every description of stocks, but particularly in BRITISH MINES, in no case departing from the position of a broker, at net prices.

Holders of mining shares DIFFICULT OF SALE in the OPEN MARKET may find purchasers by negotiation, through Mr. Crofts's agency. Also, parties requiring ADVISE how to act as to the DISPOSAL, or ABANDONMENT, of doubtful mining stocks may profitably avail of Mr. Crofts's long experience on the market in all cases of doubt or difficulty.

Shares recommended and procurable by Mr. Crofts, at the lowest market prices:—North Chiverton, Bedol-Aur, North Trekerby, Vale of Towry, Bryntall, Wheal Hope, Gawton, Crebor, East-Russell, Grenville, and Hingston.

FOR SALE, net—100 Prince of Wales, 9d.; 10 North Frances, £2; and, at a nominal price, all calls paid (an offer wanted), 100 St. David's Gold, 200 West Trevelyan, 4 Eaglebrook; 25 Rosewarne United, 24s.; 5 Basset and Grylls, £7.

BUYER of Bedol-Aur.

### MR. JAMES LANE, No. 44, THREADNEEDLE STREET, LONDON, E.C.

JAMES LANE has FOR SALE at net prices:—3 Buller, £16; 30 Cape Cornwall (fully paid), offer wanted; 50 Crebor, 42s. 6d.; 50 Colenso, 12s. 6d.; 25 Curtis (an offer wanted); 100 Calstock Consols, 22s. 6d.; 10 Dale, 7s. 6d.; 30 East Providence, £4½; 50 East Jane, 25s. 6d.; 20 East Lovell; 10 East Chiverton, £2; 30 East Russell, £2; 50 Great Wh. Bury; 50 Gurney, 12s. 6d.; 20 Hallenbeagle, £3½; 25 Haven (£2 paid), 25s.; 3 Wheel Margaret, £8; 50 North Minera (Preference), 12s. 6d. paid, 5s. 6d.; 50 New Wheal Rose, 5s. 6d.; 30 North Trekerby, £3½; 100 North Devon, £2; 50 Prince of Wales, 4s. 6d.; 25 St. Day United, 32s. 6d.; 5 Sithney and Carnmeal, £7½; 10 Wh. Kitty (St. Agnes), £8; 4 West Caradon, £9½.

### MR. PETER WATSON, 79, OLD BROAD STREET, LONDON, E.C.

MR. LELEAN, STOCK AND SHAREDEALER,  
11, ROYAL EXCHANGE, LONDON, E.C.

Shares bought and sold on the usual commission. Telegraphic messages promptly attended to. Mines inspected, and reliable information given. Established 16 years.

FOR SALE:—20 Worsley Downs, 100 West Jane, 20 East Rosewarne, 10 North Condy, 30 East Russell, 50 East Laxey, 50 Great South Chiverton, 50 Bedol-Aur, 20 Great Laxey, 50 East Providence, 100 North Minera, 10 East Trekerby, 10 South Darren, 10 Trevelyan Consols, 5 Providence, 50 Rosewarne Consols.

N.B.—Mr. LELEAN'S "Mining and General Investment Circular," No. 101, now ready, which will be sent free on application.

### JOHN RISLEY, 32, LOMBARD STREET, LONDON, E.C.

SHARES IN MINES BOUGHT AND SOLD on commission, at 1½ per cent., for immediate cash. Bankers: London and Westminster, Lothbury.

### WILLIAM SEWARD, MINING BROKER, STOCK AND SHAREDEALER, 19, THROGMORTON STREET, LONDON, E.C.

Commission, 1½ per cent. on all transactions.

### MR. JAMES H. COCK, STOCK AND MINE SHAREBROKER, 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

### MR. THOS. THOMPSON, MINING OFFICES, 12, OLD JEWRY CHAMBERS, LONDON, E.C.

### MR. J. W. GILBERT, MINE SHAREBROKER, 1, PINNER'S COURT, OLD BROAD STREET, LONDON.

NOTICE OF REMOVAL.

MR. J. B. REYNOLDS has REMOVED from 54, Threadneedle Street, to 2, HATTON COURT (49, Threadneedle Street).

N.B.—Orders to buy and sell mining shares promptly attended to.

September 30, 1864.

### MR. T. ROSEWARNE, 81, OLD BROAD STREET, LONDON, E.C., has FOR SALE:—

Bedol-Aur, £2¼. East Lovell, £7½.  
Buller, £21. East Caradon, £27.  
Carn Camborne, 30s. East del Rey, 10s.  
Chiverton, £6½. East Grenville, £7½.  
Chiverton Moor, £3. Great No. Downs, £4½.  
Charlotte United, 3s. 6d. Gawton, 16s.  
East Basset, £64. Great Laxey, £16.  
East Carn Brea, £7½. Hingston, £4½.  
East Russell (call pd.), £5½. Hallenbeagle, £3½.  
East Rosewarne, £3½. Great Bury, £2½.

And is a BUYER OF:—  
Wheal Uny, £3½. East Carn Brea, £7½. Kelly Bray, 7s.  
T. Rosewarne should be consulted at once by parties about to invest in British mines. Large sums of money may now be made. Judicious selection.

September 30, 1864. Bankers: Bank of London.

### JAMES HUME, SHAREBROKER, 74, OLD BROAD STREET, LONDON, E.C., AND MINING EXCHANGE, LONDON, E.C.

A SELLER of East Grenville, £7½; South Grenville, 12s.; East Lovell, £7½; Wenden Consols, £3; So. Condurrow, 30s.; E. Caradon, £27½; Marke Valley, £4½.

Mr. Hume, having recently visited the mines, strongly recommends for investment New Wenden (see reports) and South Condurrow. He believes, and is satisfied, that no money can be lost by buying these shares, but there is a probability, amounting almost to a certainty, that 300 or 400 per cent. may be gained.

Business transacted at closest prices.

Bankers: London Joint-Stock Bank.

### MESSRS. WARD AND JACKMAN, STOCK AND SHAREBROKERS, 2, ADAM'S COURT, OLD BROAD STREET, AND MINING EXCHANGE, LONDON, E.C. (ESTABLISHED ELEVEN YEARS.)

TRANSACT BUSINESS IN BRITISH AND FOREIGN MINING SHARES AND OTHER SECURITIES at closest prices, net or on commission, but not being DEALERS they execute orders confined to them.

Telegraphic messages to buy or sell shares of every description promptly executed for immediate cash, or for fortnightly settlements.

Commission, 1½ per cent. on all transactions.

Sept. 30, 1864. Bankers: London and Westminster, Lothbury.

### MR. D. STICKLAND, M.E., having had upwards of 40 years' mining experience in Cornwall, several years of which he has had the entire management of mines therein, enables him to GIVE GOOD ADVICE thereon.

MINES INSPECTED and FAITHFULLY REPORTED ON. DEALER IN MINING, IRON, and OTHER SHARES.

His monthly "Circular" for August contains a selected list of Cornish and other mines. Forwarded on receipt of six postage stamps.

Wellington Chambers, 75, Cannon-street West, London, E.C.

### MR. JOHN BATTERS, STOCK AND MINING SHAREBROKER, 13, THROGMORTON STREET, LONDON, E.C., pays particular attention to British Lead, Copper, and Tin Mines, for which he solicits orders to buy or sell, at net prices.

FOR SALE:—50 East Chiverton, 30s.; 50 Vale of Towry, 6s. 6d.; 10 Central Minera, 10s.; 30 South Grenville, 11s.

BUYER of Central Minera.

### MR. J. P. ENDEAN, STOCK AND SHAREBROKER, 1, CROWN COURT, OLD BROAD STREET, LONDON, E.C.

Having had 25 years' experience in the mining districts of Devon and Cornwall, and three in the London market, with daily information of important changes from qualified agents, also the most authentic reports relating to other investments, he is in a position to afford the earliest information to his clients, and to direct capitalists whether to buy or sell in mines, railways, or other securities.

Investors should apply to him for reliable information relative to the Chiverton Mines, also the Camborne and Hlogan districts.

A carefully selected list of sound progressive and dividend shares (certain to give a large percentage immediately) forwarded on receipt of 5s. in stamps.

Orders and telegrams receive immediate attention.

### MR. GEORGE BUDGE, SHAREDEALER, No. 4, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. (Established 17 years), has FOR SALE at net prices:—20 North Crofty, £3½; 10 Great Wheal Vor, £32; 30 Hallen- beagle; 3 East Basset, £64; 1 Wheal Seton, £215; 150 Anglo-Brazilian, 5s. 6d.; 75 20 Hingston Down, 200 Vale of Towry, 2s. 6d.; 40 East Rosewarne, £3½; 25 Crebor; Wheal Metal, 5s. 6d.; 1 South Caradon; 100 Bottle Hill; 2 Buller; 21 Trencrom; £2 50 New Marthia; 40 East Providence; 50 East Russell; 35 East Grenville, £7½; 20 Penden; 35 North Shepherds; 30 North Trekerby; 100 South Caradon Hooper; 20 Wheal Gold, 25s.; 50 Nova Scotia; 100 Kelly Bray, 10s.; 300 Great Northern, 2s.; 5 Ryna Gwag; 3 Buller; 40 Wheal Heazle, 20s.; 5 Billins; 100 West Maria and For- tunate; 150 Calstock Consols.

### G E O R G E M O O R E, 1, CROWN COURT, THREADNEEDLE STREET.

JAMES HERRON has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—

100 Anglo-Brazilian, 4s. 6d. 20 Glasgow Caradon, £27½.  
10 Anglo-Mex. Mint, £19. 5 Great Laxey, £16 18s 9d.  
5 Billins, £13. 50 St. So. Chiverton, £19½.  
1 Buller, £19. 50 Great Retallack, 2s.  
10 Brynford Hall, £9. 20 Gt. Wh. Bury, £2½.  
10 Chiverton Moor, £2 18 9. 1 Grambler & St. Aubyn.  
5 Clifford Amalg., £30½. 1 Hallenbeagle, £3½.  
1 Cwm Erfin, £38. 1 Herodfoot, £38½.  
30 Chiverton Val., £1 17 6. 30 Hingston Down, £4.  
20 Cape Copper, £10½. 10 Kelly Bray.  
10 Carn Camborne, 32s. 6d. 10 Kitty (Lelant).  
10 Camborne Vean. 20 Marke Valley, £4 8s 9d.  
5 Chiverton, £6½. 20 Merilyn, 2s.  
20 Charlotte United, 2s. 9d. 50 New Wheal Rose 5s 8d.  
5 Caradon Consols. (5s. paid).  
20 Caradon Hill, 5s. 50 Nant-y-lago, 4s. 6d.  
20 Cobres, £30½. 10 North Wh. Crofty, £3½.  
10 Cook's Kitchen, £14. 30 North Devon, 35s.  
10 Cliljah & Went., £3 12 6. 20 North Downs, 22s. 6d.  
30 Don Pedro, 7s. 20 New Wenden, £3½.  
20 Dale, 7s. 6d. 5 Nangiles, £26½.  
1 East Basset, £64½. 20 No. Trekerby, £2 18 9.  
20 East Carn Brea, £7 3 9. 40 New Vor & Metal Utd., £2.  
50 East del Rey, 11s. 50 New So. Caradon, 2s 6d.  
20 East Vor, £2. 50 North Minera, 4s.  
10 East Lovell, £7 7s. 6d. 40 New Marthia, 22s.  
20 East Grenville, £7½. 2 North Rosegar, £21.  
5 East Rosewarne, £3. 10 North Shepherds, 38s 9d.  
20 East Abraham, £2½. 30 N. Birch Tor & Vifiter, £23½.  
10 East Chiverton, 42s. 20 North Basset, £2.  
20 East Providence, £3½. 5 New Rosewarne, £11.  
10 East Caradon, £27½. 1 Providence, £38½.  
20 East Caradon, £27½. 100 Port Phillip, 10s. 9d.  
5 Gt. Wh. Vor, £30½. 30 Prince of Wales, 3s.  
100 Gt. Northern Cop., 1s 3d 50 Quebrada (£5 10s. paid)  
(call paid). 25 Rosewarne Utd., 34s.  
10 Gt. No. Downs, £4½. 20 South Grenville, 10s.  
2 Great Fortune, £7½. 30 So. Condurrow, 29s. 3d.  
20 Gt. So. Tolgus, £2 14 6. 2 Adams-court, Old Broad-street, September 30, 1864.

MESSRS. VIVIAN AND REYNOLDS, 37, OLD BROAD STREET, LONDON, E.C., MINING ENGINEERS, INSPECTORS OF MINES, COMMISSION, AND GENERAL AGENTS for the PURCHASE or SALE of MINE SHARES, RAILWAY, and EVERY OTHER DESCRIPTION of STOCK. Commission on share transactions 1½ per cent. on £100 and above, and 2½ per cent. on less sums.

NOTICE OF REMOVAL.—Mr. EDWARD COOKE has REMOVED from No. 75, Old Broad-street, to No. 2, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.

### MR. EDWARD COOKE, MINING SHAREBROKER, 2, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.

Mr. EDWARD COOKE has removed to the above address, where all communications on matters relating to business will meet with his usual attention.

Owing to an error in my weekly article in the Journal last week, it was stated that at Frank Mills Mine there were 40 tons of lead ready towards the next sampling. It should have been 50 tons of one quality, and 40 of another. The next sampling will be 195 tons. This is the cheapest lead mine in Devon or Cornwall, and is paying 20 per cent. on current prices.

Sept. 30, 1864. Bankers: Alliance Bank, Lothbury.

MR. GEORGE BATTERS strongly recommends his friends to buy West Chiverton, Chiverton, Herodfoot, South Caradon, Devon Great Consols, Great Wheal Vor, Chiverton Valley, Prosper United, Wentworth Consols, and Sithney Wheal Metal for investment. These shares will pay good interest for money at present quotations.—75, Old Broad-street, London, E.C.

### W I L L I A M W A R D, 29, THREADNEEDLE STREET, LONDON, E.C.

WANTED:—An offer for 170 Wending shares.

### RICHARD CLIFT, MINE SHAREDEALER, late of Redruth, now 48, THREADNEEDLE-STREET, LONDON, where all letters are to be addressed.

### MR. H. WADDINGTON, MINING AND SHAREBROKER, 20, THROGMORTON STREET, LONDON, E.C.

Shares in railways, mines, &c., bought and sold on the usual commission.

Clifford Amalgamated, Grambler and St. Aubyn, East Grambler, and Great South Tolgus should be bought at once. West Seton shares should be bought at the present reduced prices.

### MR. G. D. SANDY, SHAREDEALER, No. 48, THREADNEEDLE STREET, LONDON, E.C.

FOR SALE:—

100 Bedol-Aur, 20s. 5 Great Vor, £31½. 1 Buller.  
10 Bryntall. 25 North Trekerby. 50 Unity.  
50 Carn Camborne, 33s. 20 South Grenville, 13s. 2 Crane.  
1 East Basset, £67. 10 Kitty (St. Agnes). 10 Tolvadden.  
20 East Lovell, £7½. 50 Kelly Bray, 9s. 6d. 20 South Condurrow.  
10 Great Laxey. 2 Trelawny. 65 East Laxey.  
30 Great So. Tolgus, £24. 100 Great South Chiverton.

Mr. G. D. SANDY specially recommends the following as safe investments at present prices:—Great Laxey, Great South Chiverton, Bedol-Aur West Great Work, Wheal Hartley, East Rosewarne, New Wenden.

Current Daily Price List may be obtained as usual.

### MATTHEW GREENE has REMOVED from 27, Austinfrs., to No. 9, GRACECHURCH STREET, near CORNHILL, LONDON.

MATTHEW GREENE, STOCK AND SHAREDEALER, begs to inform his friends and clients that he has REMOVED his offices to 9, GRACECHURCH STREET, near CORNHILL, LONDON.

Mr. GREENE continues to advise the purchase of East Laxey, Great Laxey, and East Grenville shares at present prices.

EAST GRENVILLE REPORT.—The 75 west is yielding stones of black ore, and the water coming quickly from the end. The 65 west is worth good 2 tons of ore to the fathom. The 55 west is worth 55s. per fathom.

OFFER WANTED for 50 New Wenden.

### GEORGE RICE, SHAREBROKER, 5, COWPER'S COURT, BIRCHIN LANE, LONDON, (22 years' experience), has SPECIAL BUSINESS as BUYER or SELLER, for cash or account, in the FOLLOWING MINES:—

Closing quotations. Closing quotations.  
Carn Camborne ..... 31s. - 33s. East Wheal Grenville ..... £7 19 9 - 7 16 3  
Chiverton ..... £ 6 - 6½ Great Wheal Vor ..... 30 - 30½  
Clifford Amalgamated ..... 30½ - 31 Nangiles ..... 27 - 28  
East Wheal Lovell ..... 7½ - 7¾ Marke Valley ..... 4½ - 4¾  
East Caradon ..... 27 - 27½ North Trekerby ..... 3 - 3½  
East Russell ..... 5 - 5½ Wheal Crebor ..... 42s. - 44s.  
East Carn Brea ..... 6½ - 7 Wheal Grenville ..... 6½ - 6¾  
EAST WHEAL LOVELL.—Special business in these. Holders and speculators will find it to their advantage to do their business through GEORGE RICE, who is intimately acquainted with the position and prospects of this "incurable" mine.  
Money advanced on mining shares.  
Sept. 30, 1864. Bankers: Bank of London.

### MR. WALTER TREGELAS, STOCK AND SHAREBROKER, 3, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C., strongly recommends the following mines for investment, which are safe to have a rise in price:—

—Santa Barbara Gold, North Rosegar, North Shepherds, Wheal Lovell, New Rosewarne, New Wenden, East Basset and Grylls, New Trencrom, and Great Wheal Vor.

### MR. WILLIAM MARLBOROUGH, STOCK, SHARE, AND MINING BROKER, 48, THREADNEEDLE STREET, LONDON, E.C. (ESTABLISHED TEN YEARS.)

BUSINESS TRANSACTIONS IN EVERY DESCRIPTION of SHARES, at closest market prices, either net or on commission. Reliable information given either personally or by letter, upon the purchase, sale, or exchange of every description of mining stock. Mines inspected by well-known experienced agents. Telegraphic messages promptly attended to. Shares exchanged on advantageous terms. A carefully selected list of Dividend, Progressive, and Speculative Mines forwarded on application.

FOR SALE:—25 Wheal Crebor; 40 East Laxey; 10 Great Laxey; 25 Bedol-Aur, 12s. 6d.; 10 East Grenville; 10 East Russell.

### MR. T. P. THOMAS, MINING AGENT AND AUCTIONEER, 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

### MR. T. E. W. THOMAS, MINING AGENT AND GENERAL MINING SHAREDEALER, 2, PINNER'S COURT, OLD BROAD STREET, LONDON.

### MR. FRANCIS G. LANE, No. 2, ROYAL EXCHANGE, LONDON, E.C., has the following SHARES FOR SALE, free of commission:—

20 Great Laxey, £15½. 5 Wentworth Cons., £7. 100 West Trevelyan, £2.  
50 Prince of Wales, 4s. 50 South Darren, 30s. 20 Quebrada (£2½ paid),  
10 Hingston Down, £4½. 20 Marke Valley, £4 11 3. £4 12s. 6d.  
50 Vale of Towry, 6s. 9d. 15 North Downs, 21s. 2 Calvadnack, £2.  
25 East Vor, £2½. 25 North Shepherds, £2. 20 East Rosewarne, £3½.  
100 St. David's Gold, 1s. 6d. 20 St. Just United. 25 Carn Camborne, 32s. 6d.  
25 St. Day United, 31s. 30 Chiverton Valley, £2.  
Parties of respectability can have transfers registered into their names previous to payment. Bankers: London and County Bank.

### MR. F. W. MANSELL, MINING SHAREBROKER, 75, OLD BROAD STREET, LONDON, E.C.

### MR. WM. BIRDSEY, MINE AND SHAREBROKER, No. 2, CROWN COURT, THREADNEEDLE STREET, LONDON, E.C.

### MR. JOHN R. PIKE, GENERAL SHAREDEALER, OFFERS his SERVICES to INVESTORS. 3, PINNER'S COURT, OLD BROAD STREET, LONDON.

### SHARES WANTED IN THE FOLLOWING MINES, which are at the same time strongly recommended for an early and immense rise in value:—

Bryntall. Camborne Vean. Trencrom.  
Clifford Amalgamated. Kitty (Lelant). Rosewarne United.  
Carn Camborne. South Basset. West Caradon.  
New Rosewarne. Margaret. Grambler and St. Aubyn.

Friends and investors, if they would consult their own interests, will do well to act upon this advertisement, and not treat it as one of the empty statements so often put forth in the public journals. HUBERT BARNES RYE, Mining Offices, 77, Old Broad-street, London, and Mining Exchange, Sept. 29, 1864.

### MR. THOMAS CARTHAW, MINING OFFICES, 17, SISE LANE, BUCKLEBURY, LONDON, E.C.

Reliable information respecting mining generally can be obtained by applying as above. Bankers: Roberts, Lubbock, and Co., 15, Lombard-street, London.

### MR. E. GOMPERS, MINING OFFICES, 3, CROWN CHAMBERS, THREADNEEDLE STREET, LONDON, E.C.

BUSINESS TRANSACTIONS IN BRITISH AND FOREIGN STOCKS AND SHARES. Terms, 1½ per cent. Bankers: London and Westminster Bank.

### MR. WILLIAM BARTLETT has FOR SALE, at nett prices:—

20 East Providence, £4. 20 St. Caradon Hooper, 7s 6d. 10 Chiverton, £6½.  
20 Calstock Consols, 6s. 6d. 5 Trelawny, £21. 20 North Basset, 36s.  
20 North Phoenix, £1¼. 5 Nangiles, £28. 5 Clifford, £31½.  
5 Great Vor, £31½.

Offices, No. 2, Bucklebury, London, E.C.

Bankers: Alliance Bank, Lothbury.

### NOTICE OF REMOVAL.—Mr. JOHN GREEN begs to intimate to his friends and correspondents that he has REMOVED from No. 27, Austinfrs., to No. 9, GRACECHURCH STREET.

### NORTH DEVON (COMBARTIN) MINE.— THIRTY SHARES FOR SALE. An offer wanted.—Address, "B. S.," No. 9, Quay, Bristol.

### NORTH DEVON.—TWENTY SHARES FOR SALE, at 42s.—Apply to "R. N.," Mr. Dalby, Newbury.

### CALVADNACK MINE.—WANTED, an OFFER for FIFTEEN SHARES in this mine.—Address, "Miner," City News Rooms, Cheap-side.

### WANTED.—A YOUNG GENTLEMAN is DESIROUS of OBTAINING (either in England or on the Continent) an ENGAGEMENT as ASSISTANT in a LAND or MINE SURVEYOR'S and AUCTIONEER'S OFFICE.

Has had considerable experience with a gentleman of large practice in the mining district of Staffordshire. Testimonials and references of good standing and high character can be given.—Address, "S. W.," Mr. Simpson, printer and bookseller, High-street, Newmarket, Suffolk.

### WANTED, to go abroad, a PRACTICAL MAN, who fully UNDERSTANDS MINING OPERATIONS, and to EXPLORE and ASCERTAIN the VALUE of the lodes. He could be home again in two months.—Apply by letter, to "K. T.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

### WANTED, by a MINING ENGINEER, who has had extensive experience in the management of fiery collieries, a SITUATION as MANA- GER or VIEWER. First-class references given.—Address, "E. D.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

### SITUATION WANTED, by a PRACTICAL MINE AGENT, who has been employed for a great many years as underground agent in mines in England, Scotland, and Germany, and is competent to keep the accounts of a mine, and can give most satisfactory references as to character and ability.—All applications to be addressed to "H. P.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

### A PRACTICAL MINING and MECHANICAL ENGINEER, of 25 years' experience at home and foreign, and who speaks Spanish and Italian fluently, is DESIROUS of an ENGAGEMENT, at home or abroad; or would UNDER- TAKE the SURVEY and INSPECTION of ANY MINING PROPERTY in any part of the world.—Address, "B.," MINING JOURNAL office, 26, Fleet-street, London, E.C.

### TO IRON and COAL MASTERS.—A MINING ENGINEER, of 20 years' experience in the management of ironworks and collieries, both in England and on the Continent, is OPEN to an ENGAGEMENT, either in Britain or abroad. Has been accustomed to explore and report on mineral property. First-class testimonials.—Address, "Mining Engineer," MINING JOURNAL office, 26, Fleet-street, London, E.C.

### TO SPECULATORS, MINING AGENTS, &c.—TO BE DISPOSED OF, an excellent IRON ORE SETT, inexhaustible quantity, &c.; 21 years' grant, easy transit.—For further particulars, apply to "Z. Z.," Post-office, Exeter, Devon.

### TO SPECULATORS and CAPITALISTS.—TO BE LET, ON LEASE, the SEAMS of COAL lying UNDER ONE HUNDRED AND TWENTY ACRES of LAND in WARWICKSHIRE; and also therewith an OLD ESTABLISHED TILERY and BRICK YARD situated thereon, where there is an INEXHAUSTIBLE BED of FIRST QUALITY BLUE or IRON BRICK CLAY, adjoining to a main line of railway, to which a siding has been attached.—For particu- lars apply, by letter only, 339, Herald office, Birmingham.

### TO CAPITALISTS.—The LESSEE of a FIRST-RATE COLLIERY in NORTH WALES WANTS a PARTNER, with about £2000. A mining engineer or practical colliery manager might have the management. A profit of 4s. per ton can be clearly shown on the coal raised in the royalty, which is an exten- sive one.—Address, "Bryn," care of Mr. H. Greenwood, advertising agent, Liverpool.

### TO IRONMASTERS.—The COEDCEA COAL COMPANY are PREPARED to DISPOSE of TWO HUNDRED TONS DAILY of their cele- brated No. 3 RHONDDA COALS. They are pure, and eminently suitable for all iron making, raw or in coke.—Post-office Chambers, Cardiff.

### MANCHESTER. MR. W. HANNAM, MINING, SLATE QUARRYING, INSURANCE, AND GENERAL SHAREBROKER, ROYAL INSURANCE BUILDINGS, KING STREET, MANCHESTER.

A Monthly Investment Circular on application.

### TO INVENTORS and PATENTEES.—A GENTLEMAN having an extensive connection with manufacturers, merchants, and others, would be GLAD to UNDERTAKE the SALE of INVENTIONS or PATENTED AR- TICLES, on commission.—Apply to Mr. Rawls, patent office, 14, Clare-street, Bristol.

N.B.—Continental and foreign agents solicited.

### ISAAC FRANCIS, NANT, WREXHAM, a dresser of 30 years' experience, is OPEN to INSPECT ANY DRESSING PLACE on moderate terms. Mr. FRANCIS can introduce PLANS of IMPROVEMENTS that will SAVE THIRTY PER CENT. COST in certain departments of any dressing floors.



## Original Correspondence.

## BORING BY MACHINERY.

SIR,—I beg once more to trouble you respecting this subject, and whether we call it boring by steam, water-power, compressed air, or explosive substance, is all the same to me. I did not use the term invidiously, neither do I apply the term "expensive" to first cost, but to the compression of air, wear and tear, &c. I differ in opinion from Mr. Armitage as to the direct action being the best principle; and anyone can distinguish the sharp ring of the jumper in common use from the thug of a compound mass, such as Mr. Crease's piston, piston-rod, and borer. I should prefer a lever by which the borer would be made to travel twice the distance of the piston, thereby giving a smarter blow. Mr. Armitage objects to the turning of water down to be drawn up again; query, which is cheapest, to compress the air or draw the water? But in every large mine there are quantities of water descending idly, and at waste, to the different levels of the plunger-lifts, and the bottom lifts are larger than the coming stream will supply, in order that the surplus power may be available after lets or stoppages, when all the water goes to bottom. I contend, then, there is more power wasted in this way in most mines than would equal the power of all the men in the mines; and if only 50 per cent. of that power could be applied, it would bore all the holes, draw all the stuff from the shafts and winzes to the immediate level above, and fan more wind to the men than they are now accustomed to have. And now, supposing it should be necessary in some cases to drive the engine one stroke per minute faster on account of these said boring-machines, is it not as well to do this as to compress an equal power of air? I feel obliged to Mr. Armitage, and beg to tell him I am quite ingenuous; all I want is a machine to do the work, and I am quite willing that they who puzzle their brains to invent it shall have a rich reward.

Wheat Basset and Grylls, Helston, September 28.

## THE FORMATION OF GRANITE.

SIR,—Your correspondent, Mr. Jones, appears to be well read in some geological works, but is not well "posted" in the progress of the geological science. A few facts proved by direct observations are of more value than volumes of speculative assertion. Crystals, and especially those forming the ingredients of the granitic masses, can only be produced from watery solutions. All the varieties of felspars, as well as other crystals, retain a certain proportion of water in a mineralogical combination in their formation. Quartz crystals when heated become opaque, in consequence of their being deprived of their water of crystallisation. No crystal, and much less a six-sided prism, with a pyramidal termination, has ever been produced from molten glass without a mould. Igneous conditions are totally unsuitable to the operations of crystallisation of matter. Besides, it is a well-known fact that smelting operations cannot be undertaken unless the materials pre-existed in a compact and solid state; whereas water, like the ocean, may retain a great variety of substances in solution for ever, and may be made under certain electro-chemical conditions to produce its soluble materials in crystals of various forms and combinations. The igneous theory is an unwarrantable fiction, whereas the aqueous is founded on daily observations. If your correspondent is a "practical" man, your readers would, doubtless, be happy to learn something of his practical observations on the internal condition of the granite rock on which he has founded his studies.

F. G. S.

## THE TIN MINES AND MINERS OF CORNWALL.

SIR,—In a cleverly-written article, in the Journal of Sept. 17, you hinted that there was plenty of room for improvement in the tin-dressing floors of the county of Cornwall, and that the mine agents should attend to it, and not to any improvement in the mode of selling tin. Now, while I do not dispute there being plenty of room for the mechanic on the dressing-floors generally, I do believe that public sales of tin would be a great boon to the miner. There cannot be much doubt but that there are every year large quantities of tin stolen from our tin mines. What is easier than for anyone so disposed to pocket a stone of tin? and, surrounded, as many of our tin mines are, by people keeping small stamping-mills, there are few things much easier than the disposal of these stones of tin after a few weeks accumulation. Now, if all tin were sold at public sales some comparison might be instituted between the relative quantities each party keeping those mills buys and sells, and, consequently, some check upon the purchase of these pilfered lots.

Turning to the improvements which might be made in the tin-dressing floors and the working of mines, the mine agent finds greater difficulty in making improvements than any other people having so much civil and mechanical engineering under their control. Without some degree of experiment there can be but little progress. Woe to the miner who makes any experiment that does not at once succeed. He raises a hornet's nest. Every man who has two shares among 6000 will cry out against him; and everyone who has no share at all will shake his wise head, and talk loudly and exultingly about the failure of the new-fangled scheme. But if the said experiment is successful, and leads to improved machinery, the fault-finding still goes on, and the next meeting of adventurers resolves itself into a question of said agent's extravagance. Every tailor, cobbler, and bagman thinks he understands mining better than the man who has devoted his lifetime to the pursuit. If your agent is economical, and contrives by inexpensive materials to do many things, he is said to be working in a "beastly" manner. If he lays out his mine well, he is extravagant; and if he has good ideas, and by seeing through his work from the commencement makes the best arrangements possible for permanent economical working, said tailors, cobblers, and bagmen, who cannot see as he does, declare him so wildly extravagant that he will "knock" all the mines in the county, and will purchase a couple of shares to enable them to come into the meeting of adventurers, to tell how things ought to be done; and, being generally gifted in gab, will sometimes carry things their own way. And it is this power and determination in those around to do mischief which keeps many a clever miner from going out of the beaten track.

That this annoyance is carried to an alarming extent, and is hourly increasing, is notorious. Needy people purchase a share or two for immediate profit; and, if not gaining it, find fault with everything done at the mines. But the greatest noise comes from those whom circumstances have proved never thoroughly understood their own calling. These people assume an ignorance among our mine agents which really does not exist. I do not say that the mine agent is perfect—I do not know who is. Every man may be a better man than he is if he chooses: even editors might sometimes give us more instruction. But I do say that the mine agents of the county of Cornwall thoroughly understand their business. Where are the great mineral riches they have missed by their ignorance? What has been the inevitable result when the management of the mines has been taken out of their hands, and held by the would-be-wiser amateur? I do not say they are as good men as they may be. Place all the instruction you can within their reach, but while so doing *savans* may come and gather knowledge from the mine agents of Cornwall. And I do not think it is much out of the province of these men to consider any abuses that may exist in the mode of selling the produce of their mines, at a time when the tin market is in such an unsatisfactory state as at present.

Threadneedle-street, Sept. 28.

A MINE ADVENTURER.

## GREAT WHEAL VOR.

SIR,—In going over the report of Great Wheal Vor, in last week's Journal, with a most intelligent and clever geological friend, his remarks upon the singular character of the slide which has crossed Metal shaft below the 132 fm. level, and again at the 147 at Ivey's shaft, I think worthy of much attention, and may prove interesting to many of your readers having a holding in that mine. This slide has frequently been remarked upon, owing to its singular nature, being so impregnated with ore that in parts it is in itself one course. It is at a considerable angle, making towards the surface; and my friend is of opinion that the great body of ore will be found to the west of Ivey's, below the slide, and that they are now only approaching such a deposit as has not been laid open for many years in any mine in Cornwall. He considers that the great convulsion of Nature, which forced upwards the molten metal from the bowels of the earth, would have directed it still further upwards had it not been for the obstacle met with in the slide, and that, following the line of the barrier, impregnating it in its passage, it passed onwards until its force was expended, when its own specific gravity caused it to return, leaving as it cooled the rich deposits already discovered, only to grow richer as it retrograded and settled down in one great mass—the top of which he considers the 137 at Ivey's is just now entering. A glance at the workings will better explain his ideas. I have, therefore, enclosed a rough sketch, showing the line of the slide in connection with the shaft. The way in which the ore is making west supports these ideas; and, should these surmises be correct, a deposit may be found, the magnitude of which may exceed anything discovered for years. The report is one of unusual promise, and stamps the mine, even in its present state, as a permanent and safe investment. Should the ground westward continue to open out rich, and Edward's shaft, now approaching the 100 fm. level, come into ore, of which there are already indications, the value of the property would be, indeed, untold. It must be satisfactory to all connected with this great undertaking to know that

every energy and effort are being put forth to develop the extraordinary discoveries already made, and to place the property in a permanent and lasting condition.

ADVENTURER.

## EAST DEL REY MINING COMPANY.

SIR,—At the meeting in November last Mr. Henderson, the Chairman, stated that at the time he was speaking he expected that 27 stamps heads were at work at the Capao Mine, each realising 1½ to 2 ozs. of gold per day. This gentleman was perfectly justified in so stating. The dilapidation excuse had dried out: it had lasted upwards of a year—a time sufficient to have rebuilt all the machinery twice over. The want of water was the next alleged impediment. The November report from the mines came at last; the rainy season had been unusually backward—unfortunate! The March report came; it affirmed that while our pretensions and our claims had been almost deluged, there had scarcely been any continuous rain in our neighbourhood—singular! This, however, could not affect the operations of the two stamping-machines carrying 15 heads; the third, carrying 12 heads, not depending upon rain, but upon the inexhaustible water of the Guinila Riva, is, according to Capt. Treloar's own estimate, capable of crushing 720 tons of ore per month, which also, according to his own tested value of the ore, would yield a produce of 3600 ozs. of gold monthly from this machine alone.

The following extracts from the reports will show the size of the main lode at the Capao Mine, and the progressive improvement of the ore:—  
1863—June 12: Lode 24 ft. wide; extended upon 105 feet.  
July 29: Large trial test—34 tons; produce, 174 ozs.—5.11 ozs. per ton.  
[But perhaps the quality has deteriorated. Let the reports answer the question.]  
September: Gold visible in stone, but not so good as at the bottom part of the lode.  
October: Lode maintains its size; ore decidedly improving. [mine]  
November: Lode continues to maintain its quality.  
December: Lode continues to open out encouragingly.

1864.—January: Lode still improved; ore of a superior quality have been met with.  
February: Lode maintains its size and quality; never saw it look better.  
It is, therefore, undeniable, from the evidence of the mining reports, that with ore of the tested value of upwards of 5 ozs. per ton, and a 12-head stamp fully supplied with water, capable of crushing 24 tons, yielding at the minimum 120 ozs. of gold per day, the most trifling amount of produce has been reported and received, and this with a constant improvement in the quality of the ore since the trial test. In twelve months the horse-wheel kept hauling ore day and night (see report of February 27, 1864); many thousands tons of the Capao ore must have been raised. But has it all been stamped? Yes; for the April report says that "the reserve is getting small." What, then, has become of the gold? Where is the account of the number of stamps at work, the number of days the number of tons crushed, and the produce of the gold per ton? These particulars are corroborative of the gold returns. The St. John del Rey and the Santa Barbara Companies give them; why withheld by the East del Rey? Finally, for the present, the directors are gentlemen of high standing and character: not trusting to their own personal examinations of these statements are true, and finding them so, as they assuredly will do, let them at once adopt such measures as the urgency of the case so imperatively requires.

E. D.

## ENGLAND'S MINING SCHOOL—No. XI.

## MR. N. ENNOR'S VIEWS ON THE FORMATION OF COAL.

SIR,—Before I give my views on the formation of Coal, I beg to ask all persons, whether theoretical or practical, if vegetable matter was not a part and parcel of the earth when first formed; and, if so, it existed in the earth long before it grew into vegetables on the earth's surface? Then, I ask, if it had the power to pass to the surface of the earth, why or what prevented its meeting with carbon, and, therefore, what was there to prevent its becoming or growing into coals? Many persons talk of vegetable matter as if it were a new substance, and one that did not exist before vegetables had grown on the earth. Now, all thinking men must admit that all matter did exist in the earth from the beginning, otherwise vegetables could never have grown; consequently it is quite possible for it to have grown into coals, even before surface vegetation occurred. I remarked in my last that the sea at all times contained an abundance of vegetable matter, and all other substances, both before the deluge and since, and must dispose of whatever is brought into it, whether vegetable or other matter. It is here that Nature commences her operations; precipitation takes place, not as is generally supposed as sediment, as in pools, but it works under a well-defined law of magnetism and polarity. At one spot a something has an affinity for (say) carbon for vegetable matter to form coals; at another, something to form silica; at another, carbon and lime; at another, alumina, clay, and a fifth, basalt; and so on each selects and forms in a distinct manner where there is something to aid it by affinity or attraction. A beginning is made; atoms and molecules fall to the bottom, and begin to crystallise, and if several substances are present which have great affinity for each other, they will fall together and form rocks of all kinds; but, in four cases out of six, each will strive to retain its own crystal, but seldom does so perfectly, for we find one or two has intruded on nearly all the surrounding substances—we find silica intrude on near all substances. Now, coal in nearly every case forms in or about lime. Then why does it form there? The formation itself produces all the evidence required. Coal cannot form anywhere except where vegetable matter can freely obtain from 60 to 75 per cent. of carbon; it gets that supply from the lime formation; hence it is that we find vegetable matters have an affinity and tendency at all times to settle down about lime, carbon forming three quarters of the compound. Mr. Rogers talks about fish and sea-weed being required to produce nitrogen to form coals. I contend that the ocean contains all the nitrogen and every substance requisite for the formation of coal, leaving sufficient to form fish and sea-weed. Thousands of beds of coal are now forming in the ocean by combination, and also deposits of every rock known to man. Were it not so, the sea would soon become like the Thames river, too contaminated even for fish to live in. The sea is bound to form coals, and in which way can it do so but by precipitating its droplets, which it is bound to crystallise into rocks. Thousands of different patches of rock are now undergoing formation, and no two of the same contingents. Look at the most recent Geological Map published; it represents a variety of colour, every mile changes in contingents, and often changing in colour. This variegated map is taken nearly on a level—that is, it only varies a few hundred feet in height, a mere nothing when on the sea bottom. I maintain that as the sea ebbs and flows, so precipitation takes place, and whenever a rock is forming, whatever the water may be impregnated with, it will, from affinity to its kind, unite to it to form rock; the same water by tide much over the same rock. At a quarter of a mile on either side quite a distinct rock is found, and when the ocean has ebbed, the sea has exposed the patches of nearly all one substance, and is become surcharged with another, that greatly predominates, that will fall to form a second rock, and crystallise so fast as to cover or overlap the small formed rocks. We often see for some 50 or 100 miles all but a total change occur in the formation of rocks; this is readily accounted for by the extent of the ebb and flow of the tide precipitating what is brought in by the rivers within the distance, the ocean tide at times, on the outer side, storms bring in new substances, and carry off the substances along the shore. I contend that the sea is and ever was the great distillery of Nature, and by it was formed all the coals and known rocks, whether stratified or not. Stratification is dependent on the substances under crystallisation, each has its own laws; every portion is depositing its various elements to form rocks as though it were operating in so many ways. It is a query if all the mountains now on the earth were not formed under the one run of tides. We have only to look, as I before stated, to the geological maps, and there is ample proof that they are continuous in runs as they settled down quietly, the globe was made a finished mass, requiring no tinkering or repair. I believe her law was at first laid down, and will remain to the end of time. To elucidate my views on the formation of coal, I say vegetable matter brought into the ocean, whether by rivers or falling from contaminated air into it, amount to the same. The ocean appears, whenever it passes over lime, ready to yield up sufficient vegetable matter to form coals; and when the ocean has ebbed, the sea has exposed the patches of newly-formed rocks below, and its contents, to provide every other required substance to complete its work, and as a proof of this, just look at two beds of coal a mile apart. You will find they differ both in quality and contingents. Were they rafts of timber, bogs, or sea-weed, this would not occur; but it is a singular fact that all the rocks in every part of the globe vary—two beds of coal in the same mine do so—when carbon or some other constituent is not present in sufficient quantity to form pure coal. Vegetable matter will join even lime, alumina, and other substances, in forming shale, &c.; when the bulk of vegetable matter is exhausted, siliceous rocks appear to follow, to form a layer, and when that is exhausted from ore often follows. It is, therefore, clear to me that every substance acts in rotation till vegetable matter again has its turn, and forms a second bed of coal, it continues its rotation, in places forming coal, and at others substratum of rock, for 50 times, and would continue to do so till the end of time; but for some convulsion of the earth, causing one portion to sink and the other to rise. This evidently occurred at the deluge. Man does not know but that these convulsions may arise from natural causes; had nothing of the kind taken place, from whence would man have obtained his present supply of iron and coals? I say vegetable matter is like everything else passing about in atoms, and to me it appears clear that petroleum is vegetable matter, reduced to atoms, and just as metals, when fused it passes through the earth in atoms, and finds the roots of grass, the tree, and all vegetable substances; it produces the fruits and the seeds, these produce a liquid, or more refined oil than petroleum. Before I finish with coals, I may remark that I think the most illiterate man is bound, when he sees the mass of vegetable matter that is annually carried into the sea, to account in some way as to what becomes of it. He sees that the sea through time has never been contaminated; he may say that what is carried into the sea is of no amount, but I say, when we take time into account, the amount must be enormous and ample to form a greater thickness of coal and other stratifications than we now find on the dry land. I may be further told that a large portion of decomposed vegetable matter is returned to the land. I admit a portion is, but that does not penetrate far below the surface, and is no feeder to the interior of the earth. The earth would cease to yield her vegetable productions if no supply came from other sources than those afforded by what is returned to her by man. I contend that the bulk of coals is carbon; about one-third or one-fourth is made up from vegetable and other matters, such as have an affinity for what it happens to come in contact with at the time of its formation. It is a rare occurrence to find all the substances required to form good coal passing at the same time. When any happens to be wanting the quality of the coal is altered. Analyse them and they will be found to be deficient of some particular element found in good coals; and it is we find in some successive layers of rock that elements would not form if the substances required to form such rocks were not present in large quantities. There appears to be a law of rivalry or even a mastery struggle among minerals to attain their right. Man must not set down the mineral kingdom to be a brute family or an inorganic body. Each species has its invariable geometrical arrangement; the same minerals work under the same rules and laws in every part of the world; they are provided with internal configuration necessary to life; they move to growth and reproduction. Each distinct family is discriminate by its laws as much as the animals and vegetables are. Their tendency is union; and to increase by crystallising their molecules or atoms, so as to form a body. Man has learnt how to plant trees, but not how to plant metallic ores; they all appear capable of sowing their own seeds, and do it at the proper time and season in the right situations.

I notice geometrical laws prevail in the formation of all metallic substances, and if one substance is wanting a different ore is formed, and often a different crystal. Any observant man looking at the way-side can see where the rocks change their contingents. I may say they often change in every twenty yards, and at places in three yards. I ask how is it possible to account for it in any other way than that it took place in water when Nature held these substances in solution, where each family indulged in their own frisks and gambols, and joined each other from affinity; this I term crystallisation. I think there is not an individual to be found to argue that these rocks crystallised on dry land, or were tilted up from below. I will further notice that man is not prepared with proofs to show what part the elementary gases, independent of what the sea held in solution, took in forming coal, and other rocks; neither can he prove that magnetism and polarity did not produce their results; I believe them to have that power.

I next notice fossil plants and shells in coal. I do not think that these are any proof

whatever as to coal being a compressed mass of vegetable matter: it is found in most casual shells, from fish that have died, may have fallen in at the time it was in the crystallisation. Neither do I argue that a few plants, or a casual tree, might not be found in the large water reptiles found in rocks are not unlikely to have been destroyed from chemical action whilst the rock was in active formation. As to finding a quantity of land rushes and plants, I contend that they are only freaks of nature, and never will be found in the light of day. I say every rock charged with vegetable matter, whether it be lime, shale, marl, coal, or whatever it may be, has a natural tendency to strive to grow plants. Vegetable matter is in living atoms that never die; they have been portions of the body of man. I have seen plants in rocks in every stage of growth and decay. I have seen trees 6 in. through as fair specimens of trees as could be found, but when broken the centres have been found to contain shells. Look at the crystallisation of sugar leaves found in the roof of coal; what can present a finer specimen of crystallisation? What is it but a freak of Nature? We read in Genesis that God said let the earth bring forth grasses that bear seed, and trees that bear fruit, but we are not told that that came to perfection on that day. Were the Atlantic to become dry, who will tell me that grass and even trees would not spring up on it? Man and all vegetation must that the seed of all was not sown broad in the earth? I have seen so much of nature's deceptive fossils that I have become suspicious of what I do see. There is not a rock in the earth but what is constantly making an effort to crystallise a something after its own form. Notice, I do not argue that coal beds were formed in a day; their formation and becoming covered may have been the work of years, during which period marine plants may have grown in great abundance. Plants found in coals I believe to be only not known to man. Plants as large as trees may have grown on the coal beds before they were covered by the next layer.

It appears to me as though man, for the last few centuries, has taken an extraordinary idea into his head, when he supposes God to have created a world in an untried state—so unfinished as to require millions of years burning and to be charged with the combustibles to burst it into thousands, and to be re-modelled. I cannot believe as to the inability of God, or that He made a defective world; neither do I believe the inhabitants of the earth, ever saw primitive rocks. The inhabitants on the earth before the flood, we may suppose, saw only primitive rock, which is now covered with water, possibly to have secondary layers again formed. The secondary layers we now see come raising coals from were formed before the flood; they were turned up for the use of man. It became a query if there were any coals in the land dry before the flood. Who can tell us that when man has worked out all the coals now on this land, God, in His all-wise creation, may not again turn the world? It would be far more like man's creation than to burn it for 2298 millions of years, as attempted to be shown by the men at the Bath meeting. We have traditional records, and these written by inspired writers, that tell us of a deluge, and that the sun has changed its place; then what has happened since again? I have hinted before that man does not know, but what man does know is that Nature for the world to undergo these changes; if it is the will of God, it will again occur. Man has no control over it, neither ought he. These things are placed far beyond the limits of man's knowledge. As I have not a doubt but that this subject will be much read and discussed, I have to ask your readers to persevere all my letters past and to come, before they decide as to their views. All I have to say on this subject could not be combined in this letter; I shall, therefore, bring some strong proofs to aid it in coming letters. I will next speak of Granite.

N. ENNOR.

## GOLD IN WALES—No. I.

SIR,—I am extremely obliged to Mr. Davies for his kind remark on my weekly letters; much good may they do him. To his second portion I cannot return the compliment; he showed his teeth without being asked. I pity him, and make every allowance for a man met by a negative. It pricks a man's feelings when his hand is held out to take the golden sovereign about to be handed from a victimised man's pocket, for some unexpected intruder to walk up and say—"Friend, keep thy sovereign in thy pocket, the Welshman is guileful thee." I am aware that there are men about Dolgelly who have for some years learned the art of putting two and even three coats of gilt on gingerbread, not expressly to deceive the Welsh children, for they go raking the whole earth to find men fools enough to make a good bite at. If the mines be as good as Mr. Davies says, then let them keep them; really good things need not Mr. Davies's aid to trumpet them. As to gold on the wings of butterflies, I have again to compliment Mr. Davies for introducing such a becoming emblem of a deluge of gold. It has opened up such an interesting subject for discussion, that I at once ask Mr. Davies, how did it get on the wings? Is it a mineral or a metallic substance? Next, how did it get on the wings? Did it come from what the butterfly ate, and pass through the body, and then to the wings, or is it attracted from the atmosphere? In either case it will prove that Nature has the means at her disposal to produce and mix the paint of many colours. I think this an excellent subject for Mr. Davies to study, as it might bring him out a first-class gingerbread glider. I do not know who painted the Welsh butterflies, but Mr. Davies being, like most of his Welsh cousins, rather conscientious, may I ask him if he knows the Welshman that gilt the first gingerbread for the purpose of selling Welsh gold mine? If he wishes for information to carry the art to the next level, he may wish to know the quantity is required to gilt gingerbread, or paint the wings of a Welsh butterfly, or to paint a peacock's tail, I will introduce him to Prof. Pepper, who, for two or three years, will undertake to detect the hundred millionth part of a grain of any mineral or organic substance, whether it be on the wings of the butterfly, or the peacock's tail, or the gilt gingerbread, or if it be in gold mines. He may even tell him if any of these showy butterflies, of late so much fluttering about at Dolgelly, are really gilt with Dolgelly mine gold. Mr. Davies may as well tell us what number of shares he has sold from his gold mines, and what number he still holds. Mr. Davies, as I before said, being a conscientious man, I do not think he will be in earnest when he said I was snubbed; I never met with a Welshman that could do that yet. I thought I had snubbed the snubbers.

I admit I stopped at Dolgelly one day to meet a director on the mine, but I was not long in learning that the mine would not bear a true report; they soon discovered that the gilt they put on ginger-bread would not stick to me; when the promoters began to look at me as an ugly customer, and set to work to barricade their machinery, and put gates on the levels of the mine; they even forbade the men to tell me where the mine was situated. I then, like the pigeon, took a circuitous route, till I alighted on the golden fleece, but it was shut up. I looked in at the gate, and I saw it was of Welsh construction, open on either side, so I opened the door the reverse way, and in I went, and no mistake. Not a single Taffey was there to be found in the mine, but I found a pipe containing gold, about 4 ft. in length, and a winze sinking on it. I took samples, and returned again to the barricade round the machinery, where I saw the captain, but he would not let me in. I told him I had been into the mine and taken samples; he was very angry, and pulled out about a pound of gilt ginger-bread, and asked me what I thought of that? I asked him to let me out, but he refused. I have not time to follow Mr. Davies any further just now. When I have finished my letters I shall have more time on hand to meet Mr. Davies, or any other man. I say, one thing at a time is sufficient. News on Coal Formation are published this week, Mr. Davies may expect to hear for a time, and let the gold rock rearing its much meddled may rub the gilt off. I will give a very flowery report put in before Mr. Davies letter. May I say it is not the first flowery report I have crossed in my day; I have met with many gilt ones before. I have had many attempts made to gilt my own reports, even in Wales, but there appears to be something in their mixture that baffles them, as they cannot make the gilt stick to my reports, which to them appears rather strange.

N. ENNOR.

P.S. Mr. Davies may not be aware that the oxide, or atoms, of gold and silver, when exposed to the sun's rays, become metallic; in that case these butterflies should be carefully examined, to see if native gold can be detected on their wings in paying quantities, as it is not unlikely that they have more on them than there is in many Welsh mines; they will pay for brushing, or even dressing, if not they are carrying off gold. This Welshmen should not allow. I say, set to work and exterminate them at once, and not permit your mines to be daily robbed by butterflies.

## "QUARRIES AND QUARRYING—No. II," AND "QUARRY MANAGER."

SIR,—A person calling himself by the above name wrote in the Journal of Sept. 10, in which he has reviewed part of my series—letter No. 2, erroneously called by him No. 1; and in this I propose to pay the compliment back, although, as a rule, I never notice anonymous writings. However, "Quarry Manager" appears to be an exception, although it is not the appellation "Quarry Manager" that makes me think so, as quarry manager is sometimes synonymous with quarry ignoramus.

THE CARNARVON DISTRICT.—In saying that Col. Pennant's quarry had no regular vein, but was, in fact, a mountain of slate, I stated what it appeared to me to be—and "different men have different opinions." The veins now posited did not appear to me at all regular. It is true there are different colours of slate dug from the quarry; but we find different colours of slate come from the same vein. I also have confirmed by some old workmen. Now, if Col. Pennant's veins are as regular as Colwyn-y-Gladrn, and to Glynn Pedarn, it seems surprising to me that quarry managers are not opened in the interior, and results similar to Col. Pennant's heard of. I do not claim infallibility for my views, and freely admit I may be mistaken. The statement that Col. Pennant's quarry paid 250,000l. profit last year was given on the authority of the *Banner and American Welsh Newspaper*. It has contained this statement more than once without contradiction, and, as far as it goes, I think Welsh papers are as veracious as English ones; and, if I mistake not, I saw an article on Welsh quarries in the *Journal* some four or five years ago, in which Col. Pennant's quarry was rated as paying either 150,000l., or 200,000l.—I am not certain which.

Searching abilities in trying to find the Quarry; but it has been as fruitless as the search for Sir John Frankland. And if it paid the last-named sum at that time it could, under the same circumstances, pay 250,000l. now. Where was "Quarry Manager" at the time this article was published? If he can prove it never paid more than 150,000l., of course this item is in his favour. Also, may I ask "Quarry Manager" to remember that I did not pretend to write a complete history of the district, only a general view; therefore, it was not part of my object to enter into the minutiae as to distance, &c. Perhaps this brevity may have caused obscurity and ambiguity.

THE FESTINIOG DISTRICT.—"Quarry Manager" seems somewhat annoyed at my statement that all these quarries are on the same vein and did not think anyone could be found bold enough to make such a statement; but, for my part, I do not think this amendment proves anything, because when Gallic first announced as his opinion that the earth rotated, and not the sun, what amendment was then shown. "Quarry Manager" says—"Near as Llanfawr Quarry is to Palmetston, no man with an eye in his head (leaving geological knowledge on one side), could think for a moment that they were on the same vein." Now, I cannot say how much a person with an eye—that is, of course, one eye—in his head can see; but I am disposed to think that a person with two eyes can see twice as much. Probably a person with one eye cannot see Llanfawr Quarry on the same vein as Palmetston, while a person with two eyes in his head would not so difficultly whatever in doing so. "Quarry Manager" has put "leaving geological knowledge on one side" between brackets. This is very wise, as we consider words to be sentences that are bracketed things that can be dispensed with; but, as geology is introduced, it may not be out of place to enquire whether it is at variance with geology to say that all the Festiniog quarries are on the same vein? Were "Quarry Manager" merely a bookworm in geology—but I infer from his name that he has some practical knowledge of rocks, as every quarry manager ought to have—he would know that the clay-slate stratum is intimately associated with the gneiss and mica schist groups, called by some the metamorphic, by others the non-fossiliferous groups—the first because they have undergone a change, the second because, as yet discovered, they contain no fossils. He must also be aware that they are aqueous rocks, and have undergone metamorphism, or more or less by crystallisation. He must also know that this stratum is intersected by granite, sometimes bursting through in large amorphous masses, sometimes to fall on top of it, and other times overlying it. Now, will "Quarry Manager" presume to tell us that all this granite could intermix with the clay-slate, and yet all the layers run in the same direction? Again, if we appeal to every-day experience, can "Quarry Manager"











## BRITISH MINES.

of the lode which is being carried in Sleggan's shaft is 5 ft. wide, good in character, and worth 4 tons of copper ore, or 241. per fathom. The lode in the 57 fm. level, driving west of King's shaft, is improved, at present 4 ft. wide, worth 152. per fathom. The lode in the stopes east and west of the latter shaft are worth 101. per fathom each. There is no change in our tutwot operations worthy of remark since our last report. On the whole, our work is well encouraging.







and west lodes. We have sunk in it for 38 ft., and are not at the bottom of it yet; it will produce 4 cwts. of tin to the 100 cwts. of stuff. I cannot yet say that this is a continuous lode, but it certainly appears so. The vein extends between the two workings is not yet proved. The last dip is about 400 fms. to the east, and the latter, and 36 ft. thick, now laid open for 200 fms. in length, and will produce 3½ cwt. of tin to the 2½ sacks of stuff. The north lode has improved again since my last report, now worth 11½ per fathom for tin. The two branches of the south lode, named in my report of last week, are come together again; the lode is 2 ft. wide, worth 4½ lbs. per fathom for tin. I am now looking out for a water-wheel to drive 72 heads of stamps instead of 36, as we have a full supply of water to drive that quantity at all times of the year. We are raising stores for our wheel-pit as fast as possible. The adventurers may rely on a dividend being paid in three months after the stamps are put to work.

**WHEAL WHIAL.**—**MR. HENRY RICHARD,** Sept. 27: The lode in the winze sinking below the 60 yields 3½ tons of ore per fathom, and looks promising for further improvement. The shaft is now down 6 ft. below the 60, and contains stores of ore; it has a similar appearance to the lode in the winze 30 fms. further west, and it is probably going down into the same bunch of ore. In the 60 west we have a large strong lode, with stains of copper, and the end is getting near the cross-course. We are making good progress in sinking the western shaft below the 40m level. In the cross-cut north we expect soon to cut a lode.

**WHEAL UNTY.**—**S. Coads, M. Rogers, Sept. 24:** The lode in the engine-shaft is cut into 5 ft. wide, and no north wall yet, producing tinstuff of 3 cwts. black tin per 100 sacks, or 3 tons of stuff to the 100 tons of coal. It is a very important point in a mine. The other points in the mine are much the same as reported on by Mr. Rogers.

**YAKNER.**—**E. Barkell, Sept. 27:** The 40 east, on north lode, is very wet, and I believe the end will soon drain the 30, when we shall be able to sink a winze in the east end of the shoot of ore seen in that level. The lode in the 40 is still larger and well defined, and yielding about the same quantity of ore—3 tons per fm. There is no material change in the 39 east, on south lode; the walls are still going on, and the end is yielding a little ore. The slope in back of the level is worth 2 tons per fm., and the one further west, in back of same level, is worth over 3 tons per fm. The slope in bottom of the 38 (when we holed the winze), west of shaft, is also worth 3 tons per fm. The new shaft is progressing favourably, and the same remark will apply to the adit level.

\* \* The following reports reached us too late for insertion in their proper places:—

**BILLINS.**—**F. Evans, Sept. 28:** The engine shaftmen are at present engaged about fixing plunger at the 70; after this done, which will be in about a week, the sinking of the shaft will be resumed. In the 70 west the lode is getting larger and more productive; present produce ¼ ton to the fathom; the rise behind the end is improving for lead ore; a pitch is let near the rise at 2½ per ton. The 70 east produces stores of lead ore; the 70 east shaft will be 15 tons.

**LONG RAKE.**—**F. Evans, Sept. 23:** The lode at the engine-shaft is small at present, but dry. In the 80 east the lode is 2½ ft. wide, and promising, worth 8 cwts. per fm. In the 70 east the lode is 6 ft. wide, worth fully 15 cwts. per fm. The rise behind this end, against middle shaft, will be to the 60 in about a week—this has opened good tribute ground. In the 60 east the lode is about 2½ ft. wide, and will produce 1 ton or lead ore per fm. The tribute is without any particular change. We shall sell at our next sale 30 tons of good quality lead ore.

**NANT-Y-IAGO.**—**J. Rosch:** The ground in the western part of the mine is generally become more easy for exploring, and yielding more than usual. The 20 west is very promising; the lode is 5 feet wide, yielding 10 cwts. of ore and some 2 tons of blende per fm.; I expect great improvements in this direction. We shall soon send off another parcel of lead ore.

**NEW WHEAL MARTHA.**—**Henry Rickard, G. Rickard, Sept. 29:** During the past week we have cut into the lode in the 86 about 2 feet, making altogether 9 feet, with no signs as yet of meeting with the south or footwall. The lode, so far as seen, has a splendid appearance, composed of fluor-sparg, arsenical and sulphuric munda, with saving work for copper ore, worth of the latter 8½ per fathom. There is no change worthy of notice in any of our underground operations since last reported on. We are busily engaged preparing for our next sampling, which we hope will be greatly increased to our last.

**TREVAUNNAR.**—**M. Rogers, Sept. 27:** The 20 west, after the putting in of beams, eastern 8½, and fixed on 18-in. lift in same, lengthened our main rods, put in a new set of catches and stays, and put it to work, which is working well. We hope to get the water in fork by Saturday morning, so as to enable us to drop our sinking-lift, when we shall resume sinking the engine-shaft on Monday morning. There is no alteration in any of the ends or slopes since last report. There has not been much done in some of the bargains the last few days, in consequence of the men being engaged to capstan.

**WEST WHEAL MARTHA.**—**H. Rickard, Sept. 29:** The lode in the north adit level is about 2½ ft. wide, of the same promising character as for some time past, and one that augurs well, as it is only depth that is required to make it a valuable property. Since the dry weather has again set in, the water is again accumulating in the bottom.

**ADVANCES BY DIRECTORS FOR NECESSARIES.**—If a company has incurred a debt for necessities supplied to it, then, whatever may be the extent of its borrowing powers, any director or shareholder is justified in paying off that debt; and if he does so he has, in equity, a claim to contribution from the other shareholders. This equity is, however, postponed to the claims of regular creditors of the company. Vice-Chancellor Wood thus decided in the case of Lowndes v. the Garnett and Moseley Gold Mining Company of America (Limited). His Honour said no company which carries on business as a going concern, involving a large current expenditure, can so use any provisions in its deed of Settlement, which fix the amount of its capital and calls or limit its borrowing powers, as to relieve itself from liability to creditors who have supplied labour or materials to carry on the business of the company. The only effect of such provisions is that if the borrowing powers are exhausted the directors are disabled from borrowing money on the security of the company; in other words, if persons advance money to pay off these debts they cannot acquire the rights of creditors against the company. But the company is not the less bound to pay these debts.

**NON-LIABILITY OF CONTRIBUTORY.**—In re the Exhall Coal Mining Company (Limited), a Mr. Miles had applied for 200 shares in the company, and paid 500*s.* for call on them. He subsequently wished to diminish his liability, and proposed to the directors to treat the 500*s.* as paid in respect of fifty fully-paid-up shares. This proposal was acceded to, and he received a certificate for fifty paid-up shares. No call was made divided paid in respect of the remaining 150 shares. Mr. Miles afterwards discovered that his name continued on the register for 200 shares, and applied to the directors to have the register put right. The directors declared the 150 shares forfeited, as no call had been paid. It was held by the Master of the Rolls, under these circumstances, that Mr. Miles was not liable as a contributory for more than fifty shares.

**PAYMENT OF DIVIDENDS OUT OF CAPITAL.**—The illegality of paying dividends or interest out of capital has been established by decisions both in the Court of Chancery and the common law courts. The latest cases on the subject are Macdougall v. the Jersey Imperial Hotel Company (Limited), before Vice-Chancellor Wood at his last sittings, and Bale v. Cleland, tried before Mr. Baron Martin at the last Guildford Assizes. In the former case the Vice-Chancellor restrained, by injunction, the payment of interest out of the company's profits, because the directors were compelled to declare dividends improperly paid. In the other case (Bale v. Cleland) Mr. Baron Martin said:—"The law directs that directors may, with the sanction of the company in general meeting, declare a dividend to be paid to the shareholders in proportion to their shares; but no dividend should be payable except out of the profits arising from the business of the company, and therefore it is the bounden duty of the directors—indeed, I do not believe that the shareholders could legally make a dividend, for it is the directors who are to make it—it is their bounden duty, if a dividend is declared otherwise than out of profits to refuse to pay it, and, if necessary, to appeal to the Court of Chancery to restrain its payment."

**VENDOR AND PURCHASER.**—The case of Moxey v. Bigwood, in the House of Lords, was where a purchaser, after an inspection of some property, had entered into a contract under a mistake that a piece of ground was to form part of the conveyance, and the mistake was not attributable to any neglect upon his part, but was in some degree occasioned by statements of the vendor in answer to enquiries as to boundaries. On the facts stated, the House of Lords held that the defendant (the venditor) having acted under a mistake, it would be inequitable to enforce specific performance of the contract against him. The case was heard upon an appeal from the decision of the present Lord Chancellor, reversing a decree of Vice-Chancellor Stuart, whereby his Honour had decreed specific performance.

**TRADE MARKS.—**The case of Moët v. Coustou came lately before the Master of the Rolls upon a question as to the right to an account of profits in the case of a pirated trade mark. The defendants had purchased from a wine merchant in London a wine which was branded as "Moët's Champagne," and which they believed to be the genuine champagne of the plaintiffs. It, however, turned out to be spurious. The Master of the Rolls granted an injunction against the defendants, restraining the future sale of it; but held that an injunction in such a case—namely, where a person had innocently bought and sold as genuine a spurious article with a pirated trade mark—did not carry with it a right to an account of profits. His Honour said, if a person manufactured goods himself and put upon them the trade mark of another, though he did not know that the copying was wrong, he was nevertheless guilty of fraud, and liable to the mark, and this knowledge would make him liable to an account of profits; but if a man bought as genuine from a third party goods which were spurious, then, until he had been told that such goods were spurious, he was guilty of no fraud, and liable to no account.

**SOLICITORS' LIEN.**—The Master of the Rolls decided, in the case of Cooper v. Jenkins, on the question of a solicitor's lien for costs, that the Act of 23 and 24 Vict., c. 127, did not deprive solicitors of any advantage they before had, nor did it exclude them from claiming anything except under that Act. A solicitor had the right to be paid first out of the fund he had been instrumental in obtaining. The question was one not of priority, but of equity.

**EXCURSIONS AMONGST MINES.**—There is, probably, no more ready means of teaching practically the facts of importance to miners than by actual study at the various mines, and the excursions of the several classes of the Miners' Association of Cornwall and Devon are, therefore, of the greatest importance. The reports presented at the recent meeting were particularly interesting. The St. Day class report an excursion to Carnarvon, West Wheal Damsel, Old Wheal Jewell, East Wheal Damsel, Wheal Pink, Ting Rang, and other mines in the neighbourhood; whilst the Helston class visited the Trumpet Consols district, Trevenen, and other mines.

**ALUMINIUM.**—It is announced that Mr. Corbelli has discovered a method of extracting aluminium from clay, more simple and economical than any of the processes hitherto employed. "The metal is obtained directly from clay or argillaceous earth, deprived of stones, leaves, and all other foreign bodies. 100 parts of this clay is dried, and the burning power is used as fuel for the extraction of iron from its clay contain. For this purpose the clay may be dissolved in six times its weight of concentrated sulphuric acid, nitric acid, or hydrochloric acid. After the dissolution of the clay in the acid and the deposition of the earthy matters, the liquid is poured off. The residuum is again dried, then heated to 450° or 500° centigrade, and afterwards mixed with 200 grammes of prussiate of potash, the quantity being increased or diminished according to the proportion of silica contained in the clay. The mixture is put into a crucible and heated to whiteness. After cooling, the aluminium will be found at the bottom of the crucible."

**LONDON GENERAL OMNIBUS COMPANY.**—The traffic receipts for the week ending September 25 was 11,796*l.* 8*s.* 9*d.*

**THAMES TUNNEL COMPANY.**—Receipts for the week ending Sept. 24, 62*t.* 5*s.* 9*d.*; number of passengers, 14,949.

**HOLLOWAY'S OINTMENT AND PILLS—NO RISK.**—When the surgeon shakes his head and the patient feels despondent is the fittest time to try these noble remedies. Inflammations, sore throats, ulcerations, bad legs, and a far longer list ensue. If you delay, the cure will always be complete, and leave behind no danger or relapse. That this ointment exerts the most cooling, soothing, and healing powers over the most irritable, painful, and chronic sores, is an established fact, which is daily confirmed by the unadvised testimony of sympathising patients, whom (to use their own expressive phrase) Holloway's remedies have rescued from the very verge of death.



## MINING NOTABILIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

**GOLD IN WALES.**—Castell Carn Dochan Mine returned for the week 11 ozs. 5 dwts. of gold, from 25 cwts. of quartz; total yield since May 21, 109 ozs. 6 dwts.

**NEW WENDON CONSOLS.**—This mine is now looking very cheering. The shaft has gone down through 6½ fathoms of good profitable lode, and in about six weeks more it will be down to the 24, which will be driven east and west, under a still richer lode, worth at least 300l. per fathom, which can be traced at surface by the old men's burrows for hundreds of fathoms. This mine bids fair to become one of the leading mines of the district. Early profits from driving the next level may be confidently anticipated.

**ROARING WATER.**—A most important improvement has taken place at this mine during the past week; a very rich lode has been cut in going through the slide from Grady's shaft to the west shaft; the lode is composed of the richest grey copper, silver, and purple ore, which on assay has been found to contain 58 per cent. for copper. The lode has been estimated at 500l. per fathom.

**NEW BIRCH TOR AND VITIFER CONSOLS** continues to progress most satisfactorily.

**CARADON UNITED.**—An improvement has taken place in the end going east on No. 1 north lode, in the 20, below adit, which is assuming a very promising appearance, and producing some excellent yellow ore; from appearances, a further improvement is expected. In the same level the cross-cut has now reached a very interesting point—the intersection of a counter lode at a good depth being looked for, to prove the produce of this lode in the level above. It is confidently expected it will be cut good.

**DEVON AND CORNWALL UNITED.**—These important mines have been steadily improving for the last two months, and it is considered they have never looked better than at the present time, if so well.

**WHEAL TREVENNA.**—The operations at this mine continue to open up some splendid discoveries, and the value of the property increases daily as the development goes on. The flat tin course has opened out to nearly 3 fms. wide, and for its whole thickness is productive of rich work for the stamps. A large pile of ore is now being broken and lying at surface, which will be allowed to accumulate until the 36 heads of stamps are erected; every effort is given to the latter object. The lead is already cut, and the wheel-pit in progress. As soon as the stamps are erected extensive returns will be immediately commenced. The tin lode is also opening up profitable ground, and during the last week the counter copper lode has been opened on, and found to be of a most profitable character, containing rich stones of grey copper ore, and possessing every reliable indication of a valuable course of ore at a shallow depth. One of the miners engaged in driving the level worked formerly in Fowey Consols; he says this lode is precisely similar in appearance and composition to the main lode of that mine, which gave a profit of nearly 40,000l. on a very small outlay. It is not too much to expect equal, or perhaps much greater, results from this company; at any rate, it does not seem difficult to predict that Trevenna will take its place among the prizes of the coming year, and be referred to hereafter as an inducement for mining speculation.

**MINING IN NEW ZEALAND.**—The Otea Copper Mining Company have issued a report of the directors to accompany the notice that a call of 5s. per share has been made. The mine has already yielded 80,000l. worth of copper ore, with very inadequate machinery, and Capt. Holman reports that there is proof shown by the deeper explorations that the ore is not merely superficial, but it is a vein that will evidently continue in depth; and if only a permanent increase in the yield of ores takes place throughout the vein, such as seen in the 12 fm. level, where the quality of the ore is quite equal to the general shipments, the future value of the mine would be very great; and whatever course of action is determined on by the company, the mine fully warrants an extended trial. The directors remind the shareholders that Captain Holman (who has no connection with the company), is one of the ablest and most trustworthy practical authorities. They have, therefore, good reason for anticipating considerable returns and profits soon after everything is in working order.

**THE GREAT DARREN.**—This extraordinary mine still continues to give good evidence of its great value. The ore ground has been worked on the surface in a continuous groove for upwards of 800 yards, or half a mile long. A new shaft has been sunk to a depth that undercuts and is capable of dividing the whole of this length of ore ground. At this point the lode has been cut through during the last week, and found to contain a most valuable course of silver-lead ore, showing that the body of the lode, instead of being exhausted in depth, continues to be richer than ever. The cross-cut at the bottom of this shaft has been driven through the lode, which is upwards of 3 fms. wide. The lode is of greater value than above, where it yields 40l. worth of ore to the fathom, about one-third of which is for pure silver. This occurrence indicates a new era in the history of this mine. For hundreds of years successive generations of miners have been excavating this great silver-lead vein, until the workings had attained a depth that it was most difficult for them, with their crude system of mining to follow. At this moment the pumpwork and appliances of modern scientific mining have reached a point below the works constituting the most determined efforts of the old men, and new hundreds of fathoms of deep tunnelling (200 yards below the crest of the hill, the new deepest level of the mine), will have to be carried through the glittering masses of this rich vein; most probably every yard in length of this tunnel will yield 20l. of silver and lead, and traversing for hundreds of yards under deep shafts full of water, constituting an operation that would fill any other class of men except the miner with alarm, and in reality it is rather a serious work to contemplate. But so well are the safety and science of mining understood and applied in the present day, that although for the last 30 years we have watched the progress of unwatering the mines of a past age by the modern process, we do not remember an accident of drowning or injury in hoisting to the old mines of Cardiganshire, the danger being principally avoided by means of an auger-hole, bored into a sufficient mass of rock to protect the workmen, the rock acting as a screen, and the bore of the hole as a gauge, regulating the flow of water to the desired quantity, thus giving entire command of this dangerous element to the mind of the worker.

**WHEAL UNY.**—A very promising concern in the Redruth district—has, like many other tin mines, deeply felt the drop in that metal. At the meeting in London, Sept. 23, the loss on the three months was 1400l., and a call made of 5s. per share (1024l.); the labour cost to July (three months) was 3315l., and merchants bills (1248l.); total debts, 4955l. The tin sold to Sept. 20, 49 tons, realised 2850l. They owe to merchants 3827l.; and, after deducting cash due from smelters 1431l., and other credits, there remains a debit balance of 1688l. The explosion of the boiler and other delays have of course retarded operations. We notice with pleasure that the adventurers are now informed when and to whom the tin was sold, as well as the quantity and price per ton.

**TIN MINING IN CORNWALL.**—In the earliest ages to which any authentic historical records extend, even during the lifetime of Moses, there is reason to believe that Cornwall was celebrated for its tin; and let Cornishmen know that while Hiram, King of Tyre, was kindly assisting Solomon with artificers and cedar for the glorious Temple of Zion, his subjects were equally busy in carrying on a commercial intercourse with Cornwall for tin. For the year 1863, the tin ore (black tin) smelted amounted, for Cornwall and Devon, to 15,157 tons, according to the returns of sales made each month by the purchasers. But, strange as it may appear, it is to be deeply regretted that up to this time the assaying and dressing of tin ore has not received that attention which it ought to have; consequently the tin, in some cases, is passing away imperceptibly to the river, and in other cases, it is to be feared, oxide of iron is bought from the tributaries for black tin; and the unfortunate adventurers, who have such agents, have to pay for it; whilst in other cases, with the present low price of black tin, there are many places working which ought to be stopped until tin should advance to 80l. or 90l. per ton, if ever that time should come, with the present state of tin mining. The great falling off of dividends, and the very heavy calls making on the adventurers, should lead them to examine narrowly every article of cost, and see what the black tin is costing them per ton. —West Briton.

**SHOCKING COLLIERY ACCIDENT.**—An inquest was opened at Madeley, on Wednesday, upon the bodies of nine persons who met with their deaths at "Lane Pit," belonging to the Madeley Wood Company, on Tuesday evening. Shortly before six o'clock the last band of men were ascending from work, when those on the bank were alarmed by the sound of a heavy body falling to the bottom. An outcry was made, and hundreds of people were quickly on the spot. A number of miners volunteered to descend, and on reaching the bottom found that the skip, which contained three men and six boys, had fallen, and had broken through the scaffold below. The poor fellows were lying in the sump beneath, and all dead. The scaffold was composed of 6-in. oak, and this was broken as if it had been paper. As soon as possible the bodies were brought to bank, and conveyed to an adjacent public-house to await the coroner's inquest. The pit worked ironstone, and was about 250 yards deep.

## WEATHER PREDICTIONS.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—In my letter in last week's Journal I stated that from the 24th to the end of the month the phenomenon was too strong to permit of the weather being bad, and such has been the case. The winds on the 24th were strong, and the temperature has been variable. For the month of October some strong wind and rains will occur on or about the 4th, 5th, and 6th, again on the 14th and 17th. I can fully endorse the opinions of my friend Mr. E. Hopkins, expressed in last week's Journal, as to the utter absurdity of the igneous theory of Sir C. Lyell and others. These gentlemen refer to earthquakes to support their fiery doctrine. But permit me to tell these salamanders that I have discovered the absolute cause of these so-called earthquakes. I can also foretell the time these phenomena will arrive with the same accuracy as that of foretelling a gale of wind. Therefore, in future the advocates of the igneous theory must not base their arguments on earthquakes to support their water at white-heat theories.

26, Throgmorton-street, Sept. 30.

GEORGE SHEPHERD, C.E.

Author of the "Climate of England."

To Directors, Solicitors, Secretaries, &amp;c.

**IMPORTANT TO ALL CONNECTED WITH PUBLIC COMPANIES.**—Now ready, price 2s. 6d., A HANDY BOOK OF WHAT TO DO AND HOW TO DO IT, IN ORDER TO FORM ANY MERCANTILE, MINING, AND OTHER JOINT-STOCK COMPANIES. Designed as a PRACTICAL GUIDE for Projectors, Promoters, Directors, Shareholders, Creditors, Solicitors, Secretaries, and other officers. By THOMAS TAPPING, Esq., of the Middle Temple, Barrister-at-Law. London: Published at the Mining Journal office, 26, Fleet-street, E.C., and to be had of all booksellers and newsmen.

With this week's Journal we give a SUPPLEMENTAL SHEET, which contains the third paper on the Present Condition of the Labour Market; the New Turkish Mining Laws; the Mineral Wealth of Turkey; Economic Treatment of Aluminium; Researches for a New Theory of Geology; the Simplicity of the Creation; Natural Ventilation Interpreted and Practically Applied; an Electric Telegraph without Wires; Electric Light; New Alloy for Bells; Wheel Penrose Lead Mines; the Hot Springs of Cornwall; the New Light; New Quartz-Mill in Nevada; a New Red Light; Plaster of Paris for Paint; Meetings of the Tin Hill and Caradon Consols Mining Companies; New Inventions; Improved Safety-Cage; Treating Tar, and obtaining Products Therefrom; Extracting Precious Metals from Lead; Prices of Materials; Reports from Foreign Mining Companies; New Mining Company Law in Australia; Water Rights, &c.

## The Mining Market; Prices of Metals, Ores, &amp;c.

METAL MARKET—LONDON, SEPT. 30, 1864.

COPPER.		S. & S.		S. & S.		BRASS.		PER LB.	
Best selected	... p. ton	95	0	0	101 0 0	Sheets	...	11d.	—
Tough cake	...	96	0	0	98 0 0	Wire	...	10½d.	—
Tin	...	96	0	0	98 0 0	Tubes	...	11½d.	—
Burra Burra	...	101	0	0	—	FOREIGN STEEL.			
Copper wire	... lb.	0	1	1	—	Swedish, in kegs (rolled)	15	10	0-15 16
ditto tubes	...	0	1	1	—	ditto (hammered)	16	0	0-18 0
Sheeting & bolting	101	0	0	102 0 0	—	ditto in faggots	17	0	0-18 0
Bottoms	...	112	0	0	—	ditto, Spring	19	0	0-23 0
Old (Exchange)	...	91	0	0	—	Bessemer's Engineers' Tool	44	0	0-—
IRON.						Spindle	...	80	0-—
Bars Welsh, in London	7	15	0	—	—	QUICKSILVER (per bottle)	8	0	0 nom.
ditto, to arrive	7	15	0	—	—	SPELTER.			
Nail rods	...	9	10	—	—	Foreign	...	24	0-—
Stafford, in London	9	10	—	—	—	To arrive	...	24	5-—
Bars ditto	9	10	—	—	—	SING.			
Hoops ditto	10	10	—	—	—	In sheets	...	28	0-—
Sheets, single	11	10	—	—	—	TIN.			
Pig No. 1, in Wales	4	10	—	—	—	English, blocks	...	101	0-—
Refined metal, ditto	4	0	5	0 0	—	ditto, Bars (in barrels)	...	102	0-—
Bars, common, ditto	7	0	—	—	—	ditto, Refined	...	106	0-—
Do, march, Tyne or Tees	8	0	8	10 0	—	Banca	...	99	0-—
ditto, railway, in Wales	7	0	7	10 0	—	Straits	...	98	0-98 10 0
ditto Swed. in London	12	0	12	5 0	—	TIN-PLATES.			
To arrive	12	5	0	—	—	IC Charcoal, 1st qu.	p. bx.	1	8-0 1 11 0
Pig No. 1, in Clyde	2	16	0	3 2 0	—	IX Ditto 1st quality	"	1	4-0 1 17 0
Do, march, Tyne or Tees	2	16	0	2 18 0	—	IX Ditto 2d quality	"	1	6-0 1 8 0
ditto, forge, f.o.b. ditto	2	15	0	—	—	IX Ditto 3d quality	"	1	12-0 1 14 0
Railway chairs	5	10	0	5 15 0	—	IX Coke	...	1	3-0 1 5 0
" spikes	11	0	12	0 0	—	IX Ditto	...	1	9-0 1 11 0
LEAD.						Canada plates	...	13	10-—
English Pig, ordy. soft	20	5	0	20 10 0	—	In London; 20s. less at the works.	...	—	—
ditto (WB)	22	10	—	—	—	Yellow Metal Sheathing, p. lb.	8½d.	—	—
ditto sheet	21	15	0	—	—	Sheets	...	8d.	—
ditto rod	22	0	—	—	—	Indian Charcoal Pigs	...	7	0-0 7 10 0
ditto white	23	0	26	5 0	—	In London	...	—	—
ditto patent shot	23	0	—	—	—	At the works, 1s. to 1s. 6d. per box less.			
Spanish	19	10	—	—	—				

**REMARKS.**—Another week has passed without seeing any material alteration in the Metal Market. Although the present prospects of the Money Market are not such that we can hope for any immediate improvement, yet from the absence of anything like panic attending the continued high rates of discount, we are led to hope that at no distant day monetary affairs will assume a more favourable aspect, and commerce will again resume its wonted activity and vigour; and there is no doubt that eventually a good result will follow from the pressure which has existed for some time past. We regret that the recent intelligence from America, announcing that the Democratic party has been divided, in consequence of the statements of General McClellan in accepting the Chicago nomination, has in a great measure destroyed the hopes that were entertained of a peaceful settlement of the present frightful war; as, in the event of the re-election of President Lincoln, there is too much fear to expect that the war will be carried on with unrelenting vigour; and in this case the anticipations cherished of a revival in the metal trade, consequent upon peace between the North and South, would not be realised, and we should still have to look elsewhere for those markets for our metals which have been so long and so advantageously supplied by America.

**COPPER.**—The demand for this metal continues very limited, and prices are without any alteration.

**IRON.**—The demand for Staffordshire iron continues pretty good, and in consequence of the diminished make, caused by the miners' strike, orders are accumulating on the books. On Thursday, the 29th inst., the ironmasters of South Staffordshire held their preliminary meeting at Birmingham. The attendance was not so numerous as usual. The question as to the future prices of iron was soon disposed of. It was stated that there is a good average demand for manufactured iron, but no pressure, and a resolution was unanimously passed to adhere to the scale of prices of the last three months. Bars, 8l. 10s., and so on in proportion. The meeting next proceeded to consider the question of the colliers' strike, and, after a discussion of some length, the following resolution was adopted:—"That, in the opinion of this meeting, the most determined resistance should continue to be offered to the demands of the colliers now on strike, as well as to those of the men whose notices are now about to expire; and if by a continuance of those disgraceful and illegal threats and acts of intimidation towards both men and masters in this and other districts the supply of coal is still further diminished, the members of this meeting will be prepared to blow-out furnaces, and shut up their mills and forges."

In Welsh, the iron trade remains in about the same state as last week; makers experience no lack of orders, and the specifications in hand keep the works in full time. For the week ending 22d inst. the exports reached 1173 tons. In Swedish iron no alteration has occurred. In Scotch pig-iron the market has gradually declined, although a considerable amount of business has been transacted during the week. The week opened with prices at 58s. 7½d. cash, and 59s. 6d. three months, but soon fell to 58s. 6d. cash, and then to 58s. 1½d. cash, and 59s. three months, at which prices did not long continue, but again declined to 57s. 9d. cash, and 58s. 1½d. one month; and the last advices from Glasgow state the market to continue very flat; prices ranging from 57s. 6d. to 57s., cash in ten days, and at close there were offers at 57s. cash in a week; buyers shy.

**LEAD.**—The market remains dull and inactive, and prices continue at 20½. 5s. for common English pig, 20l. 10s. for L.B., and 22l. 10s. for W.B.

**TIN.**—Foreign is rather firmer than last week; sales of Straits have been effected at 98l. cash, and more recently at 98l. 10s. cash, and a small parcel at 100l., prompt three months. Banca has been sold at 99l. cash, in English but little business is doing.

**SPELTER.**—A further reduction in price on the spot has taken place in this metal; the market remains dull, and there are sellers at about 24l. on the spot.

**STEEL.**—Without improvement.

**TIN-PLATES** are in a similar position to last week.

**QUICKSILVER** can be bought at 8l.

**GLASGOW, SEPT. 20.**—The market has again been very flat, and business was done down to 57s. 1½d. cash, and 57s. 8d. one month open. No. 1, g.m.b., 57s. 3d.; No. 3, 56s. 9d.

**SCOTCH MATTERS.**—From Airdrie we learn that every branch of trade continues in full activity. At the Dundee Ironworks, a large furnace is in course of erection which, when completed, will possess the greatest producing power of any in the district. Each cast, it is calculated, will give from 25 to 30 tons of pig. At the same works new and improved machinery is being set up for the manufacture of railroad iron on a more extensive scale than has hitherto been attempted in that locality.

**MIDDLESBRO' SEPT. 29.**—The tone of our market during the past week has been quiet, the tendency being towards lower prices. To-day we closed with buyers of warrants at 51s. 3d. cash, and 52s. 3d. three months; sellers 3d. more. No. 1, g.m.b., 54s.; No. 3, 51s. A limited business has been done.

**BIRMINGHAM, SEPT. 30.**—Rylands' "Iron Trade Circular" reports trade greatly steadied by the resolution of the meeting, held on Thursday, not to advance iron for the next quarter, notwithstanding the increase of demand for manufactured and pig, and the existence of more orders in hand than can be readily executed. We incline to keep down our price-list to last quotations, but must mention them, as, with a strong market, orders running over any length of time being declined. Pigs (hot-air, best), 3l. 15s. to 4l. 5s.; seconds, 3l. 10s. to 3l. 12s. 6d.; cinder-pigs, 3l. to 3l. 5s.; hem-matites, 3l. 10s.; Forest of Dean, 3l. 15s. to 4l. 5s.; North Staffordshire pigs, 3l. 5s.; Cleveland pigs, 3l. 2s. 6d. to 3l. 8s., long weight, delivered to the district; manufactured iron bars, marked 8l. 10s.; hoops, 9l. 10s.;

sheets, singles, 10l.; doubles, 11l. 10s.; lattens, 13l.; Welsh bars, 7l. 5s. to 7l. 10s. There are 18,000 colliers out on strike, and 10,000 more are expected to strike on Saturday.

**PHILADELPHIA, SEPT. 16.**—The Metal Markets have been depressed and dull this week, owing to the violent fluctuations in gold, and both buyers and sellers are indifferent about operating to any extent. For Pig-iron there is little or no enquiry, and not much offering, but in the absence of sales attention is nominally held at 50c. to 50½c. for No. 3, 49½c. for No. 2, and 47½c. to 47¾c. for No. 1. Cash. South Pig is also but little enquired for, and the demand for manufactured iron generally has fallen off, and prices are nearly nominal at quotations. At Pittsburgh the market is unsettled and very dull, with too little selling to establish quotations, which are altogether nominal, ranging at from 70 to 80 per ton for Pig metal. Copper, like iron, is very dull, and quoted nominally at 51 c. to 52 c. for Ingots and 72 c. for Sheets, and very little selling. Coal: The market continues unsettled and dull, and to effect sales to any extent lower prices would have to be submitted to, and in the absence of sales quotations are nominally unchanged. —United States Railroad and Mining Register.

**NEW YORK, SEPT. 14.**—The market for domestic Coal is fairly active, but prices are very irregular, and tend strongly downward. The addition to the stock since the 1st inst. has been large. The consumption of coal is worthy of notice; this cannot fail to exert a marked influence on the value of coal. Foreign is in moderate supply, and firm. The market for American Ingot Copper has been only moderately active, but there is no essential change in prices, closing firm at 51 c. for Baltimore and 52 c. for Lake. New Sheathing and Yellow Metal remain firm, with an enquiry at 72 c. for Bolts and Brackets are quoted at 72 c. four months, and Yellow Metal Bolts at 54 c., six months.

**BOSTON, SEPT. 12.**—English Cannel Coal is steady, but quiet, at \$33 to \$34 per ton. Picton and Sydney are selling at \$13 to \$14 per ton. In Anthracite steady retail sales at \$15 to \$16 per ton. Scotch Pig-iron is dull, and tends downward. We have only to notice small sales at \$78 to \$80 per ton cash, for Gartsherrie and other brands, No. 1. In American Pig the sales have been at \$72 50 c. to \$75 per ton cash. The sales of Bar Iron have been confined to small lots.

In the Journal of April 23, we said that it became quite alarming to think seriously of the future in connection with the new and heavy commercial projects daily concocted and set afloat, and we added that if money became tight in reality, and the jobbers on the Stock Exchange closed their books and refused to deal or buy, there would be a panic among shareholders generally, such as we had not witnessed for many years; for when the mania for these things was on, people seemed to lose sight of prudence, caution, and even common sense, and it was useless to attempt warning them of the future, as the Times newspaper had then repeatedly done. During the past week the public have in some measure seen a verification of these remarks; there has been a panic in banks, loans, and other securities, and some of the former have fallen from 20l. to 30l. per share, while many things are totally unsaleable. Such a state of things, of course, could not occur without seriously affecting the MINING SHARE MARKET also, and business since our last has not only been very dull, but prices, almost without an exception, are lower, and mostly nominal. As the Morning Post stated this week, however, in reference to the general markets, we may also remark in regard to mines, "adverse speculation take advantage of the present state of things to depress prices, but they will not affect the real value of stocks to bona fide holders, who will ultimately reap the benefit when the market has righted itself, and found its proper level." East Grenville shares have not so firm this week, and leave off 7½ to 7¾; the 65 west is worth 2 tons per fathom, and the 55 west 35l. per fathom. Carn Camborne shares rose to 38s., on its becoming known that the south lode had been cut in the 40, worth 3 tons of ore per fathom, but leave off 30s. to 32s. East Basset, 65 to 67; at the meeting the accounts showed a profit of 964l. 8s. 10d. on two months' working, and a dividend of 2l. per share (1024l.) declared, leaving 5217l. 18s. 11d. in hand. The tribute pitches in the mine are not looking so well as they did two months since, and the returns must in some measure fall off. Wheal Grenville shares have been flatter, and leave off 6½ to 7. Camborne Vein, 1½ to 1¾; Clifford Amalgamated, 80½ to 31. Kelly Bray, 7s. 6d. to 10s.; the lode in Knight's winze, below the 25, is 7 feet wide, worth 60l. per fathom, embedded beneath a beautiful rich gossan, from which samples have been taken and assays made, producing 14 to 21 per cent. of fine copper, and is considered a very good discovery. East Rosewarne, 2½ to 3; at the meeting the accounts showed a balance in favour of the company of 1390l., and a dividend of 2s. 6d. per share was declared. Prince of Wales, 4s. 6d. to 5s. 6d.; at the meeting the accounts showed liabilities over assets 183l. 10s. 7d., and a call of 6d. per share (300l.) made; in the 30 south some very good branches of tin and copper have been met with, the southernmost, according to the agent, yielding splendid stones of black and yellow copper ore; these branches appear to be coming together, and is, they say, a very important point. The 30 west is also a kindly end, and although no value is put upon them by the agents, yet from their general appearance and character there is every indication, they say, of soon having a valuable lode, large stones of copper ore having been broken before the meeting, and since improved. Cook's Kitchen, 13 to 14; East Caradon, 27 to 28; East Caron Brea, 7½ to 7¾; East Lovell, 7 to 7½; East Russell, 5 to 5½; at the meeting a call of 5s. per share was made. Great Wheal Vor, 31 to 32; Hallenbeagle, 3½ to 3½; Marke Valley, 4½ to 4½; North Treskerby, 3 to 3½; Providence Mines, 38 to 40; Redmoor, 2s. 6d. to 3s. 6d.; South Caradon, 520 to 530; South Conduvor, 27s. to 28s.; South Grenville, 11s. to 13s.; St. Ives Consols, 23 to 25; Trevelyan Consols, 6 to 7; West Basset, 8½ to 8½; West Caradon, 8½ to 9; West Chiverton, 57½ to 62½; West Seton, 210 to 215; Wheel Basset, 90 to 95; Wheal Chiverton, 6 to 6½. Wheal Crebor, 42s. 6d. to 45s., and keep pretty firm; the mine continues to improve. Wheal Margaret, 7½ to 8½; Mary Ann, 14½ to 15½; Wheal Seton, 210 to 215; Wheal Trelawny, 19 to 20; Wheal Union, 1½ to 1½. At Great Wheal Busy the lode has been cut at Offord's 5 ft. wide, worth 50l. per fm. for tin, and from its run it appears to be south of the level to the engine some 40 fms.; and to prove this important point a cross-cut has been commenced. The winze below the 140 east is worth 40l. per fm.; the 130 east end, 15l.; the 90 east, 50l.; and the 70 east, 40l. per fm., from which it will be seen that the bottom and eastern part of the mine have improved.

On the Stock Exchange business in Mining Shares has been very limited during the week. The following quotations were officially recorded in British Mining Shares:—Great Wheal Vor, 31½, 31, 30½; Grenville, 6½; North Downs, 1; Herodfoot, 38½; East Basset, 67. In Colonial and Foreign Mining Shares the prices were:—Yudanamatana, 2, 2½; Scotch Australian, 3; General, 21½, 22; Port Phillip, 3; St. John del Rey, 37½, 37½, 38; United Mexican, 5½, 5½; Montes Aureos, 1½.

**IRISH MINE SHARE MARKET.**—Mining Company of Ireland and Wicklow Copper shares remain remarkably firm, considering the generally dull tone of our Money Market. Indeed, the former were done at 28l. 10s. for January next, and are in great demand at 27l. to 27l. 5s. for cash (7l. paid); the latter (2l. 10s. paid) changed hands at 14l. 5s., being a drop of 5s. on the quotation given by us on the 17th ult. There are many enquiries for them at a further reduction of 2s. 6d. per share, but holders will not submit. For Connorsree 16s. 6d. has ineffectually been offered, though they are pressed for sale at 17s. 6d. (20s. paid). General Mining Company for Ireland shares have been dealt in at 4l. 7s. 6d. (4l. paid), and are in better favour than for some time past. Caryfort and Killaloe Slate shares are on offer. It is said that a steamer will be devoted to the mineral traffic service between Kingstown and Garston, near Liverpool, to supersede sailing vessels for the conveyance of the iron pyrites forwarded from the several Ovoca Mines to England, via Kingstown Harbour.

We have heard from good authority that our respected contemporary, the Morning Herald (and Standard) has liberally undertaken to give its readers the benefit of an "own" or "special correspondent" on the vexed question of Ireland's wants, and the best means to ameliorate her condition. If we are equally correctly informed as to details, it is probable that this "special" has already arrived among us, and has the advantage of considerable acquaintance with our country, our people, and our political and social condition, combined with a keenly cultivated power of observation. As this same difficult problem has been attempted to be solved by several organs of the English Press, and by each with a desire to be original in its discoveries,



The Chilean Mining and Trading Company, whose formation was noticed in the Journal of Sept. 3, has had the board of direction strengthened by the addition of Mr. Henry Kendall, of Old Broad-street, the Peruvian Consul; and Mr. W. Fawcett, of Salisbury, the Chairman of East Caradon. It will be recollected that the company is formed with a capital of 340,000*l.* for purchasing, for the sum of 295,000*l.*, the Descubridora and San Pedro Mines, in Chili. It is estimated that the profits for 1863 will amount to 75,000*l.*, assuming 18*s.* 6*d.* per unit to be obtained for the unsold ore. Three cargoes are now on the way to England, estimated at 1500 tons. The directors state that the profits may be estimated at 20 per cent., which will increase as the mines become developed.

The Kilerohane and Gurtakilla Slate and Slab Company have issued a circular, directing attention to their prospectus, to the issue of which we have already referred. It is mentioned that the company has been formed to purchase and carry on the works of a very large and important slate quarry, within a few miles of Bantry, the quarry being fully proved, and in a profitable working state. The quality of the slate is excellent; it splits admirably, is of a dark blue colour, rings well, and commands the

At South Caradon Mine meeting, on Tuesday (Capt. Peter Clymo in the chair), the accounts for May and June showed a credit balance of £9377. 18s. 4d. The profit on the two months working was 39794. 8s. 7d. A dividend of 5584s. (71 per share) was declared, and £2454. 18s. 4d. was carried to credit of next account. Captain Peter Clymo reported that the mine was still in a very prosperous state, with every probability of a continuance.

been more rapid in the last few days, especially in the winzes sinking to and at the 8 ft. level. Our sales of tin although low, but of an improving character, will soon materially increase, and I have reason to hope that in West Great Reef we shall soon have laid open the big tin ore profitably. The present production of the mine is 100 tons of tin ore to be tributed 12, surface 9, making a total of 64 men." Capt. Reed's favourable opinion of the mine is confirmed by Capt. Edwin Hosking, of the Carn Breon Mine; and Mr. A. E. Paull, the parser, adds—"The mine is now in a very effective state of working; the machinery and all the necessary buildings are completed in a manner which reflects great credit on your manager, and Mr. Bennetts your engineer. Since

AT SOUTH SEKTON a detailed statement has just been issued, showing that the liabilities of the adventurers are very heavy. The balance to the end of June was £986,000, and the statement is as follows:—Due to merchants, £1154.; club fund, £1087.; and a balance owing to the adventurers, £747,000. The statement also calls amounting to 9901.; leaving debit balance, 7201. At this meeting, to be held next Thursday, the costs will, probably, amount to 17001., and no ore of any consequence has yet been sold. The total cost of the new engine and pitwork, ordered, but not yet paid for, is estimated at over 30001. Upwards of 20,000l. has been already expended on the mine, about 541. per share having been called up. The mine is divided into 400 shares, most of which are held by the adventurers, the balance being 100 shares which are held by the late pursuer himself held an eighth part of the mine (50 shares) which are now offered to the adventurers at 81. per share.—*West Briton.*

ditto	1	0	1	3	48	10	0	49	3	3	—	ditto
Sold on the 28th September.												
Phoenix	9	18	0	27	55	2	6	548	8	0	—	Harvey & Co.
Wh. Grenville	12	5	0	20	62	12	6	767	14	3	—	Blaise Co.
ditto	2	13	2	23	32	10	0	140	19	6	—	ditto
East Grenville	3	17	1	17	61	15	0	238	19	6	—	ditto
ditto	0	14	1	24	51	0	0	36	17	8	—	ditto
Sold on the mine.												
Drake Walls	12	10	0	0	—	—	—	796	0	0	—	—

TOTAL PRODUCE.					
Wheal Rose .....	515	£347 11 0	St. Day United....	148	£ 517 16 0
South Cardanol.....	511	4754 16 0	Wheal Polmar....	140	855 13 0
Clifford Amalgam.....	500	1767 19 6	Boscawen .....	114	505 6 0
Phoenix Mines .....	419	1391 5 6	Gonaemon .....	85	281 19 0
North Treaskerby ..	358	1892 9 0	North Down .....	77	455 19 0
Great Wheal Busy.....	300	738 14 0	South Crinnis ..	24	87 12 0
West Cardanol .....	258	1693 12 0	Buckingham's Ore..	18	39 3 0
Fowey Consols .....	213	1193 5 6	East Cuddra .....	8	39 0 0

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—Clifford Amalgamated 925—Wheal Seton and Pendarves 501—West Seton 455—East Pool 327—Wheal Bassett 160—South Toigou 160—Dolcoath 114—South Wheal Crofty 109—West Toigou 100—North Crofty 95—East Bassett 96—Tincroft 80—New Treleigh 52—Carn Camborne 45—Condurow 32—Crane 30—Camborne Vein 13—Illogan Mine 5.—Total, 3289 tons.

Copper ores for sale on Thursday next, at Tabb's Hotel, Redruth.—Mines and parcels.—West Bassett 405—Carn Bre 395—Prosper United 324—East Carn Bre 233—Rosewarne Consols 129—West Foway Consols 121—Charlotte United 119—Par Consols 117—Rosewarne United 96—Copper Hill 90—Great South Toigou 615—West Alfred Consols 56—Bampfyde 52—Wheal Anna 37—South Carn Bre 34—Wheal Vyrryan 26—South Dolcoath 24—Wheal Agar 22—North Frances 14—Rolling Well 10—Boswidene 9—Camborne Consols 6.—Total, 2403 tons.



## WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,  
MINING AGENTS, STOCK AND SHARE DEALERS, &c.  
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 30 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

**GENERAL REMARKS.**—When we consider the high rate of money, and the terrible fall in the price of bank shares, and other undertakings not usually considered of a speculative character, we think shareholders in mines may almost congratulate themselves upon prices generally. It is true some have had a sad fall, but nothing to be compared with banks, while a great many are higher now than they were weeks ago. Yet mining is of a purely speculative character, and supposed to be subject to greater uncertainties and fluctuations than any other description of property, and these uncertainties are often made use of to influence market operations. A few days ago an article, very prejudicial to mining generally, appeared in a daily paper. In that article, as a whole, there was much of forcible truth, but much in connection with the Cost-book System that we must dissent from. If anyone will take the trouble to refer back to our Annual Reviews of Mining for the last 20 years, they will find constant condemnation and exposure of the kind of proceedings and practices referred to by the paper in question; and for the last two or three years we have, in the *Mining Journal*, on several occasions, shown that mining had, in a great measure, degenerated into a system of gambling in shares for time bargains, which was not mining at all, and did great harm to it; indeed, half the evils complained of, in our opinion, have proceeded from it, for not only are many mines manufactured for the market, but many good ones are worked up and down to suit "bulling" and "bearing," to the great injury of investors and the *bona fide* holders. The Cost-book System, as we have often said, is a mutual partnership, where the partners meet and audit their accounts every two or three months, and provide funds for working; but, as any shareholder who may not pay up his calls or proportion of expenses cannot be sued merely for the calls, it is customary for the creditors of the mine to apply to him; but if a man owes 10*l.* arrears of call, and is applied to by a creditor for 100*l.*, he is always freed from the latter on paying up the former, in well-conducted mines. And we see no great injustice in this, as many people make a practice of never paying calls until compelled, when mines are poor, and throw an undue burden upon those who respond properly. And in reference to gambling in shares for time bargains, with all its evil consequences, which we have so frequently condemned, and still condemn, we yet say for every man ruined by them in mines, or by spurious mining, 500 are ruined every year on the Stock Exchange by speculating in foreign stocks, and shares that seem often to be regarded with favour, by the general press, while mining even in its legitimate sense, has few friends, and everyone has a dig at it. Banks, too, which ought to be the most legitimate of undertakings, have ruined thousands of families, and will ruin still more before long. Look, also, at the millions of money obtained from the public during the last year or two for new companies, brought out, in many instances, merely to enrich promoters, and which will end before long in a general smash! The *Times* held out a warning hand against them, more than once, but it seemed to be of no avail; and the losses sustained by the public in any one of them may be greater than the total losses in all the mining companies in the market put together. As for management, let anyone read the report of the liquidator of the Unity Bank, and say if anything like it was ever heard of, or even possible, in the very worst of mining companies! How many shareholders have been half ruined by this bank, and what must they think after reading such a document? We know, however, that these sort of things, however bad, are no excuse for bad mines, or disreputable persons connected with them; but, by comparison, mining evils are small and inconsiderable, though few pursuits are more open, from its very speculative character, to designing adventurers. Let us remark here that the mineral wealth of this country exceeds 30,000,000*l.* sterling—that to this wealth we owe our commercial greatness and prosperity, and that without speculation it never was, and never will be, obtained. The best opinions as to mineral deposits are often wrong; the best indications of ore are often fallacious; and so long as mining continues, and our mineral wealth be produced, there will be great risks and great failures; and if we did not also say there will always be a few black sheep connected with it, we should be making it an exception to every other pursuit.

**PRINCE OF WALES.**—At the meeting a call of 6*d.* per share was made, and the report was of a very satisfactory nature; in fact, there is every appearance of a course of ore coming in the lode very shortly. We have frequently called attention to the mine, and when shares are four times the present price the public will begin buying. In comparison with the price of many mines, these shares ought now to be 1*l.* each.

**NOVEL QUARTZ MILL.**—An improved arrangement of quartz-crushing battery has been proposed by Mr. John Wilvert, of Clifton, U.S.; it consists of a framework of four upright posts standing in a plank; these posts are connected together at the top by cross-pieces, the frame being about 8 in. long, by 4 in. wide and 8 in. high; one end being the battery frame, in which are four stamps of squared wooden arms with iron heads. A short distance from the battery frame is a fulcrum shaft, on which are placed as many levers as there are stamps. In the proportion of twice the distance from the battery to the fulcrum shaft is the cam shaft to operate on the levers in lifting the stamps. The battery is similar in many respects to one lately constructed by Gaston, although Wilvert claims his as entirely original, having made the plan several years since. The features claimed as new and valuable are placing friction rollers for the levers to act upon in lifting the stamps, and attaching rollers also to the cams that bear down upon the levers. The superiority of this over the old method can only be proven by trial. We have a strong desire that the new inventions may succeed to the utmost anticipations of the projectors, but as yet reluctantly confess that we cannot see their advantage. *San Francisco Mining and Scientific Press.*

**MINING BY MACHINERY.**—The introduction of Mr. Crease's new patent boring machines is likely to take place generally in Cornish mining. At Great Wheal Fortune, the committee reported they had received and accepted an offer from Mr. Crease to supply one of his patent boring machines to prosecute the cross-cut at the 95 fm. level towards the Carnmenal lode, which will probably be thereby interested in one-third the time compared with manual labour, and at little additional expense. *West Briton.*

## MINING FINANCIAL ASSOCIATION (LIMITED).

TO THE DIRECTORS OF THE MINING FINANCIAL ASSOCIATION (LIMITED).  
GENTLEMEN.—The past week has been merely a confirmation of the promise of the previous one. Everything is, I consider, going on smoothly and well, and our business is steadily progressing and enlarging. In my last report but one you will, perhaps, remember I particularly referred to North Devon, South Devon, and Okef Tor Mines. North Devon is still an improving mine, and the shares will shortly have a considerable rise; they are now improving, and the shares are very scarce on the London market. South Devon has, since I referred to it, been in greater demand, and more attention by others has been called to it. From Okef Tor I have the latest report, and I refer you to it for particulars; at the present price (£1½) these are cheap shares. I desire to point out to you that the ore from this mine is improving in quality as the deeper levels are extended to the profitable ground. Okef Tor is situated in a very fine locality for ore, and will in time do very well indeed.

I have hitherto been delayed from proceeding much further towards bringing out Old Combarmin Mine. I hope, however, to be able to give every shareholder in our Association an opportunity of taking any shares they may desire in the ensuing week. My confidence in the mine is strengthened considerably from the enquiries and researches I have made. The first shareholders will have one of the cheapest and most certain of mining speculations. We are also progressing as fast as possible towards bringing out the two other schemes, of which I must next week give you the particulars. Besides these which we shall very shortly bring out, two of yourselves have brought to my notice two most promising sets. I mean, of course, they appear promising on paper. I shall take the earliest opportunity of visiting and descending them that I can. In addition to these, I have applied for the terms upon which a lease would be granted to work a most promising piece of lead ground in Wales. I hope next week to show you the terms. I think for an outlay of from £50 to £100 we shall certainly prove whether or not the property is worth to us £2000, as I believe it will shortly prove to be. The set is at present ungranted, and we shall, we hope, deal at once with the lord of the manor. We find some promoters of often-tried schemes come to us, asking enormous premiums for what really cost them but a day or two's trouble. I do not mean to say that a person bringing an excellent investment before the public is, doubtless, entitled to a considerable reward; but I think it should generally be contingent on the success of the scheme as an investment.

We have a considerable amount of business on our hands for next week; but I hope every week will add to this. We will do our utmost by promptness and good faith to merit the approval of all who deal with us.

There are many mines now selling low that may be expected shortly to go very much higher. To any investor who comes to us we are enabled to recommend and do business in these, and we look with confidence to each of our clients to bring us many more. We judge that a good selection now will pay from 80 per cent. for the next year, with a strong probability of doubling this rate.

Day by day convinces me, gentlemen, that our association will be a growing and successful one. I consider our principles are of the soundest kind, and that they will outlive what opposition we meet with, and will in the end make our shares a standard investment.

I have much pleasure in bringing before you Capt. Trelease's report of the Combarmin Mine, and I beg to call your particular attention to it. I am now going to ask you to transfer the business of that company to the directors of the Combarmin Mine, and I am very glad to be able to say that three of yourselves have joined the board of directors.

I wish, also, to bring before you the papers relating to the Brongerlin Mine, with full reports and details. I call your particular attention to this, as immediate profits from it seem exceedingly probable.

The letters of the week are now brought before you, and I have conveyed your decision respecting the colliery in Flintshire to the parties who brought the estate to our notice. In conclusion, allow me to add that everything is going on to my own and, I trust, to your satisfaction.

I have the honour to be, Gentlemen, your obedient servant,  
EDWARD JAMES GIBBS.

Offices, No. 32, Walbrook, London, E.C., September 30, 1864.

**THE TIN TRADE.**—The present price of tin is lower than it has been for some time past, but there is reason to suppose that the extremely low rates now ruling will shortly improve. There have been several circumstances tending to unsettle the tin market, such, for example, as the projected changes in the Dutch Trading Company's sales; it is to be hoped, however, that their effect will be but temporary. The variation in the prices of the tin sold by a given mine is, perhaps, more to be relied upon than the general average of the market. The following average price of black tin, sold from Great Wheal Fortune Mine, from 1850 to 1864, will be read with interest, from the highest to the present low price being a difference of nearly £20 per ton:—

1850—January	to April	£78 16 0 per ton.
April	to August	78 16 0 "
August	to November	84 0 0 "
November	to March, 1860	85 12 8 "
1860—March	to July	82 9 6 "
July	to October	85 15 0 "
October	to January, 1861	85 10 0 "
1861—January	to April	75 18 3 "
April	to July	75 1 4 "
July	to October	73 3 10 "
October	to January, 1862	74 11 6 "
1862—January	to April	68 15 6 "
April	to July	70 10 0 "
July	to October	72 13 0 "
October	to January, 1863	71 2 6 "
1863—January	to May	72 13 6 "
May	to August	76 1 6 "
August	to November	71 13 0 "
November	to February, 1864	72 15 3 "
1864—February	to June	69 11 9 "
June	to September	66 10 9 "

Average of the above, 75*l.* 16*s.*

**LARGE INCREASE IN THE EXPORTS OF COAL.**—During the past month there has been a good business doing in the export coal trade at the various ports of the kingdom, with the exception of the northern ports, and there has been an increase of 71,569 tons in the exports as compared with those during the corresponding period of 1863. From January to August inclusive of the present year, the total export of coal from all the ports amounted to 5,263,403 tons, showing an increase of no less than 327,698 tons, as compared with the corresponding period of 1863. The exports for the month of August from Hull, Grimsby, and Goole amounted to 39,356 tons, showing an increase, as compared with the corresponding month of last year, of 10,889 tons; from Liverpool 67,333 tons, increase 19,773 tons; from Bristol, Cardiff, Swansea, Newport, Llanelly, Port Talbot, Neath, and St. David's 237,005 tons, increase 47,069 tons; and from Glasgow, Port Glasgow, Greenock, Grangemouth, Alloa, Borrowstoness, Troon, Ardrossan, and Inverkeithing, 61,078 tons, increase 1890 tons. From Newcastle, Shields, Blyth, Amble, Sunderland, Seaham, Hartlepool, Stockton, Middlesboro', Whitehaven, and Maryport there was a decrease of 7552 tons, the export being only 379,404 tons. The chief markets during the present year which show a remarkable improvement are the following:—The exports to France during the year show an increase of 84,744 tons in the first eight months, as compared with the corresponding period of 1863; to Italy the extraordinary increase of 117,527 tons; to Spain 18,839 tons; to the Mediterranean 75,141 tons; to Africa an increase of no less than 154,661 tons; to the West Indies an increase of 128,567 tons; to Turkey an increase of 19,743 tons; and to Austria an increase of 26,008 tons. During the first eight months of the present year the exports to Prussia, as compared with the corresponding period of 1863, show a decrease of no less than 187,985 tons, and there is also a considerable falling off in the exports to Denmark: this is in a great measure owing to the war. The only other markets which show a material decline are the North American, which indicate a decrease of 71,482 tons, and the East Indian, showing a decrease of 56,805 tons. The exports to Germany, Holland, and the Channel Islands show a small diminution, but it is not necessary to go into particulars, as the amount involved is so small.

**MUNTZ'S METAL COMPANY.**—The report of the directors, to be presented to the general meeting at Birmingham, on Wednesday, states that "the transfer of the business from Mr. Muntz to the company was duly effected on Jan. 1, and the arrangements connected therewith have been carried out, to the joint satisfaction of Mr. Muntz and the directors. In commencing the discharge of the duties devolving on them the directors have had, during the brief period that has elapsed since the commencement of the company's operations, to contend against the disadvantages attending the unsettled state of the money market, the numerous and almost unprecedented fluctuations in the prices of metals, and the uncertainty that prevailed as to the political aspect of affairs, not only in Europe, but more especially on the American continent, which has almost paralysed the shipping trade of the United States. It is, however, satisfactory to them, on occasion of this first meeting with their co-proprietors, to be enabled to convey the assurance that, notwithstanding these drawbacks, the experience afforded during that period has confirmed their convictions of the soundness of the enterprise in which the company is embarked, and justified the anticipations held out to the public as to its permanent success. After examination of the books and accounts of the business done, the directors, feeling satisfied with the first six months of the company's operations, had no hesitation in declaring an interim dividend to June 30 at the rate of 5*l.* per cent. per annum (being the highest rate for the first interim dividend allowed by the Articles of Association), which has already been distributed to the shareholders. The directors were fully prepared to expect that in the prosecution of their proceedings the company would have to contend against powerful and active competition; but it is gratifying to them to report that the business, notwithstanding all opposition, maintains its high position of superiority in public estimation, and the company retains its large and valuable connection; while, by the opening up of new fields of business in various directions, promise is afforded of extension of relations and permanency of profit. This advantageous position, due to the high estimation in which Muntz's metal is held over every other description of yellow metal, it will be the earnest endeavour of the directors to maintain by the utmost attention to its composition and manufacture. Mr. Ralph Heaton, Mr. C. H. Wagner, and Mr. F. I. Welch, having retired from the direction, their places were immediately filled by Mr. W. A. Adams, Mr. E. Gwyther, and Mr. H. Wiggin; and Mr. Stephen Barker has subsequently accepted a seat at the board.

**SOAP FROM COAL OIL.**—The *Oil City Register*, of Pennsylvania, has seen a good article of soap manufactured from coal oil. It is claimed that soap manufactured from this oil will remove all kinds of stains and dirt, and do more work than any other, and in less time.

## Notices to Correspondents.

\* Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journals should be regularly filed on receipt: it then forms an accumulating useful work of reference.

**GLAMORGAN IRON ORE COMPANY.**—Will some one interested kindly give me information as to the position and prospects of this undertaking? When first introduced, considering the parties respectable, I took some shares, but have not heard anything of the concern since.—L.

**CRIOCHETH SLATE QUARRY.**—Though I do not as a rule consider it correct to make communications to the press concerning works under my charge professionally, unless specially authorised or instructed so to do by my clients, as represented by their directors for the time being, I may probably, being also a shareholder, reply to "shareholder's" queries, concerning the Cricioch Quarry, in last week's *Journal*. In such capacity I am surprised that he, in common with others, does not know that, under resolution by general meeting in April last, all works but certain trials recommended by Mr. Evan Hopkins, F.G.S., were suspended until July, to which month the meeting was adjourned. The result of those trials having been to show the existence of a considerable width of rock of a much improved character eastward, it was resolved at such adjourned meeting to resume the development of the quarry. This work is now progressing at such rate as the payment of arrears and calls justify. As regards the manner, I shall willingly report publicly when properly authorised. At present I must content myself by saying that, as a shareholder, I consider appearances promising.—G. T. FULLEN, C.E.: Manchester-buildings, Sept. 29.

**SLATE MOUNTAIN COMPANY.**—Will you permit me to state, in reply to your correspondent, "E. B.," in last Saturday's *Journal*, that he is under a mistake about the annual meeting of this company being held, as it has not yet been held, nor will it be before November, due notice of which, no doubt, will be sent him. It is hoped that "E. B.," and all others interested in the company, will attend the next annual meeting, as many things require explanation and investigation, as well as the names of Lord Gordon and Mr. Hopgood not being now on the board of directors; and as no business can be transacted without a quorum of shareholders being present, they would be consulting their own interests to attend, more especially as it appears that before then an independent report of the present condition and future prospects of the company's quarry will be in the hands of the shareholders, and as this and other matters may lead to the desirability of passing resolutions, a quorum will be absolutely necessary. At the last annual meeting the directors had it all their own way, as those shareholders present had their hands tied, they not being numerous enough to form a quorum, consequently no business was transacted. If a quorum had been present I almost believe a vote of want of confidence in the directors would have been proposed.—A SHAREHOLDER.

**SHARE DEALING.**—We never interfere in the sale or purchase of shares: neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

\* The *MINING JOURNAL* is published in time for dispatch by the early mails on Saturday, and should be delivered with the usual morning papers of that day. In cases of irregularity, we recommend that orders be given to Messrs. Smith, or other active agents, who will readily undertake to supply it.

THE MINING JOURNAL  
Railway and Commercial Gazette.

LONDON, OCTOBER 1, 1864.

The Returns from the Board of Trade for the eight months, and the month, ending August 31 are issued, and continue to demonstrate the extraordinary amount of business transacted between this and other countries in every article of produce and manufacture. Taking the exports alone, we find that the shipments amounted in value to 16,274,269*l.* for the short, and 108,716,219*l.* for the longer period, which is an increase of 2,185,455*l.* over August 1863, 18,964,368*l.* over the eight months of 1863, and 26,440,112*l.* as compared with the same period of 1862. These figures are, indeed, striking, but there seems every reason to believe that they will be most materially increased, even relatively, before the close of the year, so great is the extent of transactions in every branch of British industry.

Against the aggregate of 108,716,219*l.* for the general exports of the eight months, mining enterprise stands at 22,085,648*l.*, or rather more than one-fifth, which is the usual proportion. The total for the same period of last year was 20,612,572*l.*; so that the present figures are an excess of 1,473,076*l.*, after allowing for a decrease of 511,852*l.* in copper, brass, and lead; the first-named to the extent of 444,846*l.*, the second 12,338*l.*, and lead 54,668*l.* The transactions in the precious metals are considerably in favour of this country, the imports being declared at 19,412,148*l.* for the eight months, while the exports were only 16,258,582*l.*, leaving, consequently, 3,153,566*l.* to our credit. The imports consisted of 11,411,120*l.* in gold, and 8,001,028*l.* in silver. The interchange between the several countries does not present any material feature for comment.

On Monday next will be opened another session of the ROYAL SCHOOL OF MINES in our metropolis. Fourteen years having elapsed since this Miners' College was inaugurated in England, we may, we think, after so long a trial, enquire how far the educational system there adopted has fulfilled the national requirements, and how far the knowledge there taught is appreciated by the mining world at large. The system, which experience has decided to be the best for training men as efficient miners, geologists, and metallurgists, is one that involves subjects which seem, at first sight, to have little bearing on these sciences. Thus, the following course has been adopted in Jermyn-street, and the student on entering is first instructed by means of lectures in the science of chemistry, including a knowledge of all the bodies that enter into the earth's composition, and he is shown in the laboratory how to detect the presence of each, and how to estimate the precise quantities in any substance; in short, he is taught qualitative and quantitative analysis. From chemistry the student passes on to the school of physics, where he learns the principles of magnetism and electricity, and acquires knowledge of the three great forces—sound, light, and heat. From these branches of experimental philosophy he next turns his attention to mineralogy, and is taught the science of crystallography; the physical properties of minerals, their chemical composition, and how to distinguish them by the aid of the blowpipe, or by external appearances. Applied mechanics are then introduced to his notice, and the study of these includes a course of lectures on the principles of mechanism and mechanics, with their practical application. All these, however, are but preliminary to the subject of mining, still a knowledge of each is deemed essential to make a good mine manager. The course in the art of mining, which follows last, is an elaborate one, embracing every branch of mining, from the opening of the ground to the dispatch of the ore dug from it to the smelting-works. In this way the Royal School of Mines undertakes to educate her mining students.

There is, besides this mining branch of the school, a metallurgical branch, and to obtain the diploma in this section all the subjects enumerated above must be acquired, except the last, mining, for which metallurgy is substituted. Metallurgy is taught in the laboratory and lecture room. In the former the student learns practically how to assay, and to determine the value of mineral bodies. In the latter he is taught the principles on which the metals are commercially extracted from their ores. Lastly, there is a geological section of the school, in which Natural History and Paleontology are taught as introductory to geology; this last being learnt in the lecture room and in the field. So we see the plan of instruction is divided into three divisions—that of mining, metallurgy, and geology. In each diploma are given alike, and the study of one does not necessitate the study of the others. This arrangement has been adopted that each student may have that kind of knowledge he particularly requires.

Now, all the above subjects cannot but be considered essential in a mining educational college, and this being admitted, we have now to see whether they are well taught in this our Royal School of Mines. In doing so, all will allow that in the choice of the present professors at Jermyn-street our Government has been most fortunate: the tutors are, without exception, men who have signalled themselves before the world as masters of the sciences they are employed to teach. But, whilst we admit this, we must add that it does not follow as a consequence that a thorough master of any subject possesses the power to impart his knowledge to others. A lecturer should not only be satisfied with retailing his knowledge, but should endeavour to interest his pupils on the subject they are studying. Now to effect this, a most excellent plan has been adopted by some of the professors at Jermyn-street, of holding periodical examinations throughout their course, which has the double advantage of obliging the student to follow the subject thoroughly, and offers him at the same time the opportunity of correcting any errors he may have made in his first impressions in the lecture-room. The plan, indeed, seems so salutary that we would it were adopted by all the professors; and if, further, the professors could be



force the taking of notes by all the students, and could, as we know one of their number has been in the habit of doing, examine occasionally the notes taken, the advantage would be very great to the pupils. To the students we may add that notes carefully taken will be always serviceable.

In taking on ourselves the task of reviewing the course of education adopted at Jermyn-street, and of offering counsel to master and students, we do not desire to assume the dictatorial, but rather to make public the great advantages offered by this college to the mining community, and to help it in its good work. When we consider what a vast sum is annually expended in mining operations in England, it is surely well that men should be able to obtain such insight into the laws which govern Nature and her products as the wisdom of man has been able thus far to comprehend. To impart the collected wisdom of those who have already laboured in this field of economic geology, the Royal School of Mines was founded, and has been since supported by national grants. On the ground, then, that all are interested in the scheme, may all offer counsel, but more especially may we as miners, for we can but look with anxious eyes on every act of this, our only great mining college.

The question that next comes before us is—Does the School of Mines efficiently perform the duty of teaching its pupils? Our answer is simple, and we point with pride to the number of her students who have gained high honours elsewhere. In the New London University examinations for science and degrees, those Jermyn-street students who have competed have invariably carried off before them in those subjects of natural science taught at the Royal School of Mines. It remains, then, only for us to enquire—Does the mining world acknowledge the advantage of the education taught here? We hesitate in answering this question, although we can point to many students who occupy important posts in the mining and metallurgical world of the northern and middle counties of England. But we must allow, with a blush, the value of scientific knowledge does not yet seem to be appreciated in Cornwall and Devon. How it is that for so long the prejudice remains in that corner of England against scientific men, who have not been brought up to earn their bread by the sweat of their brow, we cannot say. This rank weed of prejudice is, however, we trust gradually dying, and we hope ere long to see it entirely rooted out. That scientific knowledge is of value to one who directs, either in the mine or the smelting-house, must be admitted, and no greater proof can be adduced of its truth than the fact that the most enterprising of our ironmasters, copper smelters, and coal miners employ foreigners possessing scientific knowledge of these branches of labour, only because they cannot find the same learning amongst Englishmen. In conclusion, in the great competition that now exists in every branch of trade and manufacture, and when it becomes, as now, a matter of vital importance to reduce to the lowest the cost of production of every article of commerce, in this we say may the Royal School of Mines look for increased support, since it follows that he who calls to his aid the appliances of science will drive from the field the man who doggedly repels such assistance, simply because the former can send his produce to market at less cost than the latter.

**THE MINERAL STATISTICS OF THE UNITED KINGDOM for the year 1863,** prepared by Mr. ROBERT HUNT, the Keeper of Mining Records at the Royal School of Mines, were carefully summarised in the MINING JOURNAL of Aug. 6 last, and as the Statistical Department of the Board of Trade has since issued the "Statistical Abstract for the United Kingdom," extending over a series of years, we are enabled to place the figures relating to our mining industry in such a position that the progress made may be readily seen. As the figures given by Mr. FENBLANQUE are taken without alteration or addition from the annual reports of Mr. HUNT, the comparison of the several years may be thoroughly relied upon. The subjoined table shows the value of the coal and metals produced during the ten years ending 1863, the first nine years being taken from the Board of Trade Abstract, and the last from Mr. HUNT's return, which will not appear in the Board of Trade Abstract until 1865. With the exception of a slight decline, caused by the panic in 1857, the progress has been invariably satisfactory, until, in 1863, our mineral products reached the enormous figure of 36,364,327. With regard to pig-iron, the value is given upon an estimate of the actual cost of production. The grand total for 1861 includes 10,816*l.*, the value of 2784 ozs. of British gold, and that for 1862 includes 20,390*l.*, the value of 5299 ozs. of the same metal produced during the year. The British gold included in the total for 1863 amounted to 552 ozs., worth 1747*l.*, so that it will be apparent that the gold has not favourably influenced the grand total.

QUANTITIES OF METALS PRODUCED FROM BRITISH MINES.									
Years.	Coal.	Pig-iron.	Fine Copper.	Metallic Lead.	White Tin.	Zinc.	Silver from Lead.	Other Metals.	Total of Coal and Metals.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1854	64,461,401	3,069,838	19,890	64,006	5,974	6,000	558,559	1,111	64,461,401
1855	61,483,079	3,211,154	21,294	62,229	6,000	6,177	661,190	1,111	61,483,079
1856	66,445,450	3,269,377	24,207	73,129	6,000	6,177	682,866	1,111	66,445,450
1857	63,098,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	63,098,919
1858	67,008,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	67,008,919
1859	67,008,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	67,008,919
1860	67,008,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	67,008,919
1861	67,008,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	67,008,919
1862	67,008,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	67,008,919
1863	67,008,919	3,269,377	17,478	67,383	6,000	6,177	682,866	1,111	67,008,919

**MINERAL TRAFFIC ON RAILWAYS.**—We continue our notice of the progress of mineral traffic on the principal British railways in 1863, as compared with 1862. The West Hartlepool (including the Cleveland) carried last year 1,622,428 tons of coal and coke, and 549,198 tons of other minerals; against 1,589,357 tons of coal and coke, and 211,624 tons of other minerals in 1862; the Whitehaven and Furness Junction carried last year 80,574 tons of coal and coke, and 654,803 tons of other minerals, against 86,642 tons of coal and coke, and 389,798 tons of other minerals in 1862; the Whitehaven, Cleator, and Egremont carried last year 56,414 tons of coal and coke, and 682,919 tons of other minerals, against 67,207 tons of coal and coke, and 447,288 tons of other minerals in 1862; the Whitehaven Junction carried last year 204,692 tons of coal and coke, and 391,895 tons of other minerals, against 172,653 tons of coal and coke, and 203,582 tons of other minerals in 1862; the Caledonian carried last year 3,882,982 tons of coal, coke, and minerals generally, against 3,506,672 tons in 1862; the Edinburgh and Glasgow Railway Company carried last year 1,069,187 tons of coal, coke, and minerals generally, against 1,341,514 tons in 1862; the Drumpeller carried 337,472 tons of coal and coke last year, against 298,389 tons in 1862; the Glasgow and South-Western carried last year 2,620,726 tons of coal, coke, and minerals generally, against 2,475,326 tons in 1862; the Great North of Scotland carried last year 95,203 tons of coal and coke, and 86,741 tons of other minerals, against 60,028 tons of coal and coke, and 154,227 tons of coal and coke in 1862; the Monkland carried last year 1,120,520 tons of coal and coke, and 614,163 tons

of other minerals, against 1,050,868 tons of coal and coke, and 552,501 tons of other minerals in 1862; the North British carried 998,804 tons of coal and coke, and 105,233 tons of other minerals, against 891,628 tons of coal, coke, and minerals generally in 1862; the Scottish Central carried last year 493,271 tons of coal, coke, and minerals generally, against 340,765 tons in 1862; and the Scottish North-Eastern carried last year 261,084 tons of coal and coke, and 103,710 tons of other minerals, against 182,428 tons of coal and coke, and 62,378 tons of other minerals in 1862. Progress is thus generally discernable.

THE THAMES EMBANKMENT.

Although the contractors for the above-named important work have, during the past few months, made a great show of activity in forwarding it, yet little real progress has been made. Nearly 12 months have now elapsed since their tender for the undertaking was accepted by the Metropolitan Board of Works, and two years and seven months from that time was the period in which they were bound to complete the first section of it. The coffer-dam, meantime, is in a very incomplete state, notwithstanding the fact that one reason assigned for giving the contract to Messrs. Furness and Co. was that they were said to be prepared to commence upon it the day following that on which it was accepted. So far from the work having been begun, as it should according to that arrangement, at the end of October last year, nothing was done actually until Feb. 16 in the present year.

Competing contractors, at the time of tendering, were informed by the engineer to the Metropolitan Board that the tide must be thoroughly excluded before the "stuff" to form the embankment would be allowed to be deposited; and that as it had all to be raised from the bed of the Thames, carried in barges, and lifted over the coffer-dam, they would have to take those facts into consideration in drawing up their estimates. They did so, and in one instance, at least, where it was supposed that this stipulation would be rigidly enforced, the extra expense expected to be thus entailed increased the estimate sent in by no less a sum than 60,000*l.* Had those contractors been aware that the engineer's statement was mere moonshine, doubtless they would have framed their tenders differently. Messrs. Furness, however, appear to have been the only gentlemen among the various competitors for the Thames Embankment works who possessed sufficient prescience to foresee that this condition was never intended to be enforced. All sorts of "stuff" has, apparently with the sanction of Mr. Bazalgette and the board, since been deposited by the contractors, although, as has been remarked, the coffer-dam is very far from being complete. Does this appear just towards the unsuccessful contractors?

So far from Thames gravel and drift being alone used, very little of that material has been really employed, whilst much of the stuff which has been substituted for it has been washed away by the tide—as if in revenge for its own promised exclusion,—and left as a deposit on the banks of the river. It would seem, indeed, from the mode of procedure hitherto adopted that Messrs. Furness had issued a general notice to all whom it might concern that rubbish of every kind might, for a consideration, be shot into the foundations for the Thames Embankment. It is true that some remonstrances against this apparent violation of the original specification of the engineer to the Metropolitan Board of Works have been made, but they have only recently had the effect of putting an end to it. It is somewhat curious to note the manner in which the Chairman of the Board has on different occasions dealt with the subject of "Thames ballast & dry rubbish." In the summary of the proceedings of a board meeting, held on July 8 last, and reported in the *Times* of the 11th of the same month, we find the following:—"Correspondence read between the officers of works and the officers of the board of the Thames Conservancy, relative to the filling in of the Thames embankment, it appeared that the Thames Conservators complain that instead of the contractors who make the embankment using the material dredged from the river, as ordered by the Act, they were filling in with rubbish obtained from other sources." The Chairman, in reply to this well-substantiated charge, observed "that the contractors had taken all the material supplied by the Conservators, and that if the fillings in were to be all taken from the bed of the river the works would not be complete in double the time allowed."

Supposing the Chairman's statement as to the material taken from the conservators to be in accordance with fact, ought not the substance of the context of his statement to have been well-known to the board before the tenders for the formation of the embankment were called? and if so, why then fetter the competing contractors with impossible conditions? But a letter written by Capt. Burstal, and read before the Select Committee of the House of Commons, which recently sat on the Sewage question disposes of the first part of the Chairman's statement. The gallant officer in question therein denies that the contractors had taken "all the material" which was dredged by the machines of the Thames Conservancy. On the contrary, they had shown a marked indisposition to take any of it, and had thus put the Board of Conservators to great inconvenience. The subject was resumed at a meeting of the Metropolitan Board, which took place on Aug. 5, and it will be instructive to notice briefly what then took place. Mr. Bidgood opened the proceedings by stating that a report had been made to the St. James's Vestry, that although the Thames Conservators were prepared to supply 1000 tons of dredging material per day, and had gone to great expense for dredging-machines, yet Messrs. Furness would only receive four barges per day. He, therefore, wished for an explanation of the circumstance. In reply, Mr. Thwaites said that the board was in communication with the Conservators on the subject, and called upon the clerk to read a letter respecting it which had been sent them. For that letter we have not space, but one extract may be given for the sake of elucidation:—"The reason the taking of the filling in had been discontinued was because the contractors complained that they could not get from the Conservators the best deposit from the river, which was sold to others for building purposes. The inferior was sent to them, and for it they were charged 6*d.* per yard, while they could get it from private individuals for 4*d.* per yard, and it really only cost the Conservators 3*d.* per yard." Other statements of a similar character were made in the official document referred to, and Mr. Thwaites wound up the business by boldly asserting that it was certain "the Conservators were selling the best part of the gravel, and sending the contractors the mud." To these charges Capt. Burstal, on behalf of the Thames Conservancy, replied Aug. 11, and it is a matter of regret that we cannot find space for his letter. It completely disproves those charges, and convicts the Metropolitan Board of Works and the contractors for the Thames Embankment of something much more serious than gross ignorance.

Finally, the Conservators have threatened to enter upon legal proceedings in order to enforce the fulfilment of the conditions of the Act in reference to the embankment; and now the Chairman of the Metropolitan Board of Works has seen fit to make a third statement in reference to the question at issue (*vide* Board meeting of the 23d inst.) Mr. Thwaites, on this occasion, had "found that there was a tendency on the part of the contractors to take a less quantity of the material from the Conservators, in order that they might get more from other sources. He, therefore, suggested that the engineer to the Board should be placed in a position to insist on their taking all proper material from the Conservators, so long as they were able to supply it; and the Board had only now to prohibit the contractors taking anything from the land side at all." Thus, for the present, the matter rests; and we think that neither the Metropolitan Board of Works, nor the contractors so especially favoured by them, have much reason to congratulate themselves upon the issue of the question of "ballast to be paid for, versus rubbish to be shot on payment."

It is by no means clear to us, looking at the wording of the Act of Parliament, and of the specifications for the Thames Embankment, that the contractors have not violated both, and thus cancelled their contract. At any rate, the public should in future do what the Metropolitan Board have neglected—keep a sharp eye upon the progress of the work, and the manner in which it is being done. The navigation of the river, not less than the traffic of the streets of London, depends on the proper construction of the embankment.

**MINING IN SPAIN.**—The Palentina Leonesa Company have decided upon selling the whole of the mines and works by public tender, and the detailed announcement will be found in our advertising columns. The properties extend over considerably more than 2000 acres, and are situated in the valleys of Sabero, Colle, and Veneros, in the province of Leon. They comprise large mines of coal, iron, and kaolin, in connection with which is an extensive ironworks established on the English system, the mines, works, plant, and stock in trade being of the estimated value of 10,500,000 reales (110,526*l.* 5*s.*). The sale will take place at Madrid on Oct. 31, at three o'clock, on which day the sealed tenders will be opened. Each tender must be accompanied with a certificate that 300,000 reales

(3157*l.* 18*s.*) has been deposited at the Caisse des Depots et Consignations as a guarantee for the due execution of the deed of purchase. We hope shortly to give a detailed description of the property.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

SEPT. 29.—To-day the Ironmasters' Association for South Staffordshire and East Worcestershire held their Preliminary Quarterly Meeting at the Hen and Chickens Hotel, Birmingham. There was a numerous and influential attendance. In the regretted absence, from illness, of the Chairman, Mr. Philip Williams, his brother, Mr. Walter Williams, was voted to the chair. The meeting was protracted, it being understood that the whole question as to wages of men in the ironworks, as well as of those of the miners, was considered. As was anticipated, it was decided to confirm the prices adopted at the last Birmingham Quarter Day, on the basis of 8*d.* 10*s.* for bars; hoops, 9*d.* to 9*d.* 10*s.*; sheets and plates, 10*d.* With regard to the colliers' strike, the following resolution was adopted unanimously:—"That in the opinion of the meeting a most determined resistance should continue to be offered to the demands of the colliers now on strike, as well as to those of the men whose notices are about to expire; and if, by their disgraceful and illegal threats and acts of intimidation towards both men and masters in this and other districts, the supply of coal is still further diminished, the members of this meeting will be prepared to blow out furnaces and shut up their mills and forges." No resolution was passed respecting any reduction of the wages of puddlers and millmen, as was by some thought likely.

The strike goes on without much change, except that the cases of intimidation are increasing, and the consequent convictions before the magistrates. In the first instance the greatest possible conciliation was used, and the men were reasoned with, especially on their duty and interest to stand by the rule of a fortnight's notice, but the result was that disregard for the law increased; and at length Mr. Spooner, the stipendiary magistrate, was compelled to send men to prison. On Friday last, his Court at Bilston was interrupted by the assembly of a disorderly crowd, with a whistle and a drum, and the police captured some of the disturbers, who, with others, have been fined 20*l.* each, or two months' imprisonment.

The attempt of a Birmingham meeting to induce the settlement of the strike by persuading the men and masters to refer the matter to the Lord-Lieutenant of the counties of Staffordshire and Worcestershire and the Mayor of Birmingham, has failed, first the men, and next the masters, having declined such a mode of arrangement. It is worthy of note that the Mayor of Birmingham, at the very meeting, gave a most extraordinary erroneous account of the question at issue. On Saturday next the notices of the colliers for an advance at a very large number of their coal mines expire; and, if the men go out, as they probably will, for a few days at any rate, there will be, probably, 25,000 men out. This week efforts have been made to induce the North Wales colliers not to allow any coal from the district to be sent into Staffordshire, and also to get them to contribute towards the support of those on strike. As far as can be gathered from the papers, the result is next to nil. With regard to the future of the struggle, the gravest anxiety for the peace of the district is felt. Thousands of hungry men, with starving families, can hardly be expected to continue in peace week after week. Every preparation has been made to prevent any outbreak, and the police force could be at once reinforced by the military in case of a disturbance. It is earnestly to be hoped that peace will be preserved. It may be worth while just to recall the cause of the strike. In the autumn of last year the iron trade, which had long been depressed, showed signs of improvement, and the price was advanced 10*s.* per ton, and wages of ironworkers and miners in twice that proportion; and thick coal men 6*d.*, and of thin coal men 3*d.* per day; this being the usual advance with a rise of 1*l.* in iron. In October iron went up 1*l.*, and wages another 6*d.* and 3*d.* In January there was another advance of 1*l.* in the price of iron, and a third advance of 6*d.* and 3*d.* in miners' wages. This last advance was found to be too great, and the orders went elsewhere. It was taken off iron in July, and wages reduced by the 6*d.* and 3*d.* last put on. The thin miners accepted the reduction, but in the thick coal district it was resisted. The only reason the miners have to urge against the reduction is that puddlers were not reduced at the same time. This was an anomaly, and puddlers are now receiving 2*s.* per ton above the old rate, in proportion to the price of iron. The reason why they were not reduced is partly because the masters have not lately been acting together, as formerly, and partly because there is now a special demand, and a not large supply of puddlers. The strike is now extending to the thin coal districts, where the men have, after accepting the drop, asked for a rise. The appearances all point to the conclusion that the men must lose in this struggle, and it is a sad pity that they should persist in it. When the strike is over it will be desirable to reconsider the whole question of the rise and fall of wages in collieries and ironworks. The new steel works, on Bessemer's principle, have just been opened at Crewe.

REPORT FROM DERBYSHIRE, YORKSHIRE, AND LANCASHIRE.

SEPT. 29.—After a searching investigation, it now turns out that the sole cause of the failure of the Leeds Bank has been owing to the reckless conduct of the manager in giving accommodation unlimitedly, and in the lack of supervision which the paid directors of the bank ought to have exercised. The inconvenience which the stoppage of the bank has occasioned has been felt by the whole mercantile community in Yorkshire, more especially in the woollen trades, but its effect has also been severely experienced by several ironmasters, who did business directly or indirectly with the bank. It is said that if the creditors are forbearing the affairs of the bank will not prove so disastrous as might be supposed. Calls to the amount of above 120*l.* per share, it is considered, will ultimately be required. The Iron Trade continues to be in a healthy state, and the demand for plates, bars, and railway ironwork is active, not only for home consumption but for export. The armour-plate makers continue as busy as usual, and there is at present an ample amount of orders on hand to maintain a state of activity for a very considerable period. The test of the plates made by the Sheffield manufacturers has been so highly favourable that there is not any stint as regards the orders. In the Cleveland iron district there is ample evidence of the great increase which is taking place in the trade. At Stockton some extensive new works are to be erected, which will occupy nearly 40 acres of land. There is a good demand for Cleveland pig-iron, and every inducement is afforded for the development of the iron trade in that locality. The extraordinary, dictatorial, and foolish strike of the iron workers in Middlesbrough has happily terminated. The man Bushel, who had become so obnoxious to the men, resigned, and when that obstacle had been removed the men at once agreed to return to work, and did so. Supposing the strike had continued, we cannot imagine the men would have received any sympathy or support from the public. There was no complaint against the masters as to wages, nor a word to be said against them, yet they have been subjected to a serious loss by the foolish combination of the strike. Some step should be taken to prevent the recurrence of such a scene as has been witnessed in Middlesbrough, with a force of military and police.

The activity in the Coal Trade continues without any immediate prospects of abatement, owing in some degree to the strike in Staffordshire, which still continues, and the anxiety of the London merchants to get in their winter stocks. The making of the Midland Extension from Bedford to London will be a great advantage to the coalmasters in the Midland counties, as the Midland will then be in a position to carry coal at a much less rate than at present. All the collieries, especially in Derbyshire, are in full work, and the only difficulty is to get a sufficiency of hands. In Yorkshire the coal-cutting machine is being introduced with success, and the hopes of the masters are that in a short time a large amount of labour will be economised. The greatest progress is being made in Derbyshire with regard to the development of the Coal and Iron Trades. The Clay Cross Company are putting down a large plant at Pilsley to get the deep coal, and a branch railway is being made at Wingfield to join the main line of the Midland, for the purpose of conveying the mineral from some new pits which are being sunk. The Devonshire New Coal Company, too, are making rapid progress in their shafts, and it is very remarkable that though they have gone to a very considerable depth they have not encountered water. The Staveley Coal and Iron Company (Limited) are also about to enlarge their works, so that, with the smaller works which are being made, no doubt employment will be afforded for some thousand additional hands during the next year.

Mr. Kitson, the manager of Mr. Wilcock's Colliery, York-road, Leeds, with Fisher, the banksman, have had a verdict of manslaughter returned against them, arising from the death of Edward Pinder, a hurrier at one of the pits. Mr. Joseph Dickinson, Government Inspector of Mines (who attended to watch the enquiry in the place of Mr. Morton, the Inspector of



the district, who is at present unwell), had visited the pit, and remarked in severe terms upon the winding arrangements.

The joint-stock system, with limited liability, appears to be growing with rapid strides in Yorkshire, as well as Derbyshire. On Wednesday two firms were inspected and resolutions adopted to conduct them under the Limited Liability Acts. The majority of them are formed privately, and there appears to be no difficulty in getting the requisite capital, if there be a tangible prospect of success.

There is a dullness pervading the local-stock and share markets, on account of the Leeds Bank failure and the high rate of interest. Railway traffics are good, and the price of shares keep firm.

#### REPORT FROM MONMOUTH AND SOUTH WALES.

SEPT. 29.—The ironmasters of Monmouth and South Wales are well supplied with orders, and in many instances the books are full for the next two or three months. The works are in regular employ, and a large amount of activity is to be witnessed on all sides. The advance in bars is fully sustained, and rails are also in active enquiry, more especially on foreign account. As stated last week, some orders are sent to South Wales which would have been executed in Staffordshire had it not been for the turn-out there. The collieries are unusually busy, and the daily output is at present larger than it has been for a considerable time. Contracts have been entered into to supply several Staffordshire makers with fuel for two and three months to come, and the energies of the railway authorities are taxed to the utmost in conducting what may be termed this immense traffic. Aberdare steam is quoted 11s. f.o.b., and other qualities in proportion. There is no lack of demand in the house coal trade, but the dearth of coasters continues, and, in consequence, buyers are unable to get their supplies at the required time. Red ash is quoted 10s., free on board at Newport. Attempts are being made to induce the colliers of this district to follow the example of the Staffordshire men, but it is satisfactory to add that up to the present time these attempts have failed in their object, except in so far as to obtain expressions of sympathy from the Welsh colliers. Expressions of sympathy can, however, be indulged in to any extent without trade being injured, and no one will interfere with such indications of feeling. It is an admitted fact that a good collier can now earn in this district 35s. per week on an average; and as there is no lack of employment, would it not be exceedingly unwise on the part of the men to send the trade away by resorting to a strike, and lose the present golden opportunity of making money? No doubt they see this, and they have adopted the sensible course of looking after their own interests, and leaving every other district to do the same.

The alleged "truck" at Messrs. Bailey's Beaufort Works, has excited some attention in the district, as it was generally supposed that Mr. Crawshaw Bailey set his face against truck of every description. The adjourned cases have been heard at the Tredgar County Court, and Mr. Crawshaw Bailey in his evidence said he rented the shop for 300l. a year, and the proprietor always paid the men at the draw. He did not allow any salary for this. Mr. P. A. Williams, who formerly had the shop, said they often went for the men's tickets, in order to secure payment for shop goods.—Mr. Pews (Simons and Pews), who appeared for the defendants, maintained that no legal payment had been made within six years on account of the debt alleged to be due by the men, but if a legal payment had been made, it was clear that the 5th section of the Truck Act had been infringed, for it is stated that not even any "device" should be resorted to or practised to prevent wages being paid in the current coin of the realm.—His Honour (Judge Herbert), in giving his decision, said he could see very little against busling, and what he said was translated into Welsh by the overman. A copy of the rules was supplied to each workman. The defendant admitted the offence, and said he had a copy of the rules at home, but he could not read them. The magistrates having consulted Mr. Mogridge, said this was a very bad case, and the defendant could not set up the defence that he did not know he was doing wrong, for he had not only a copy of the rules given him, but he had been specifically cautioned on the occasion of the Morfa explosion. Under these circumstances the Bench considered that, out of due regard to the safety of the men in the extensive collieries in the district, it was their duty to commit the defendant for three months, with hard labour.

At the Swansea Police Court, on Saturday, John Thomas, collier, employed at the Tyronol Colliery, was charged with having violated the 28th special rule, by smoking in the said colliery. Mr. Lowrey, the manager, proved that he found the defendant smoking in the most dangerous part of the colliery, and the lives of all the men were thus placed in the greatest jeopardy. After the Morfa explosion he called all the men together, the defendant among the number, and cautioned them against smoking, and what he said was translated into Welsh by the overman. A copy of the rules was supplied to each workman. The defendant admitted the offence, and said he had a copy of the rules at home, but he could not read them. The magistrates having consulted Mr. Mogridge, said this was a very bad case, and the defendant could not set up the defence that he did not know he was doing wrong, for he had not only a copy of the rules given him, but he had been specifically cautioned on the occasion of the Morfa explosion. Under these circumstances the Bench considered that, out of due regard to the safety of the men in the extensive collieries in the district, it was their duty to commit the defendant for three months, with hard labour.

SWANSEA.—Trade has been generally brisk since my last report. In coal exports large orders have been executed, while the imports of copper and other ores have been considerable. The Board of Health have decided on raising the embankment of the present reservoir at the new waterworks. This is to be done on the recommendation of Mr. Robert Rawlinson, engineer to the board, at a cost of 89,000l. This will give an addition to the water supply of at least 100,000,000 of gallons a year. An application was made to the corporation, on Wednesday, from Mr. Joshua Williams, manager of the Vale of Neath Railway, asking for a modification of the town and quay dues, with the view of developing the iron export trade, the Downlands Company being desirous of making this their outlet for this kind of trade, and having stated that they will prepare a number of narrow-gauge trucks for the purpose. The corporation, with the view of meeting the matter, are inclined to abolish the dues entirely if they can secure indemnification in some way, and the subject has been referred to the committee for consideration. I need scarcely say that the abolition of the dues would be a great boon to the trader, and would lead inevitably to an increase of traffic in several important particulars. At the present stage of the question, however, there seems to be a leaning towards the larger traders compared with the small, which it is to be hoped will not be further developed.

The arrivals at Swansea include—the Henry Bath, from Valparaiso, with 146 tons of copper unwrought in pigs, for Messrs. Henry Bath and Sons; Enterprise, from San Sebastian, with 1908 bags of copper ore, containing about 90 tons, for Messrs. Henry Bath and Sons; Pomony, from Rouen, with 104 tons of copper ore, for Messrs. Elford, Williams, and Co.; San Fernando, from Guayaquil, with 443 tons of copper ore in pigs, for Messrs. Bath and Sons.

PRESENTATION AT PORT TENNANT.—An interesting ceremony took place in Port Tennant Works, on Sept. 17, when Mr. Edward Bath, the general manager, and the son-in-law of the proprietor, was presented by the workmen with a very handsome silver cup, bearing an inscription in testimony of the esteem and regard in which he is held by one and all in his employ. Within the last few years the Port Tennant Copper Works have achieved gigantic proportions, giving employment at the present moment to between 500 and 600 workmen, and producing some of the best and largest sheets of copper ever manufactured in this or any other district. The works have assumed their mammoth dimensions under the fostering management of Edward Bath, and not only have his exertions been eminently crowned with success in a material point of view, but he has won the gratitude and good-will of the whole body of workmen. The presentation was the spontaneous free-will offering of the workmen, evincing their gratitude towards a kind and benevolent employer, and bespeaking a feeling between the employer and employed which it is always desirable to promote and encourage.—*Swansea and Glamorgan Herald.*

IMPROVED STEAM-BOILER.—The proper distribution of the heating surface in a steam-boiler is very important, since the quantity of fuel required to evaporate a given amount of water in a given time is directly affected by it. In the boiler herein described both the horizontal and vertical systems of setting the tubes are adopted, and the heat, instead of passing off at a high temperature, is taken up in its course, and imparted to the water to be evaporated. From the freedom of the water spaces a good circulation is constantly maintained, and the steam-room is open and ample, instead of being contracted. The boiler shell has a furnace set in it, at the back end of which the horizontal flues are inserted, and run into a combustion-chamber. In this the gases which were unconsumed in the furnace are driven over by the draft, as shown by arrows, and are ignited and consumed, instead of being carried directly through into the smoke-pipe, as in the locomotive boiler. From the combustion-chamber the heat descends into the second system of flues. After passing through these they emerge into the smoke-box, and finally deliver whatever heating value remains in them to the third system of flues. The smoke-pipe is attached to the hood as usual. The ash-pan is separated from the smoke-box by a partition. This boiler, which is the invention of Mr. H. Leslie, of New Jersey, can be stowed as strongly as any other, and free access can be had to all parts. Should tubes leak, or required to be cleaned, the combustion-chamber is simply large for a man to enter and repair or sweep both the horizontal tubes leading into the same, while the tubes can be cleaned from above, as usual. So long as the crown-sheet is covered in this boiler the flues are also, and the danger of overheating them is much lessened, for it is seldom that an engineer becomes so careless as to let the water get lower than the furnaces.

GUN-COTTON.—This substance has again been the subject of interesting experiments, which we find described in a paper addressed to the Academy of Sciences by M. de Luca. Gun-cotton is decomposed very slowly in the dark, somewhat faster in diffused light, very rapidly when exposed to the sun, and still more so when exposed to a heat of about 50° Centigrade. This spontaneous decomposition passes through four different stages. At first it contracts slowly without losing its primitive form and texture, so that its volume becomes ten times less than its original one. A few days later it becomes soft, and is transformed into a sort of gummy matter, which adheres strongly to the fingers, and has no longer any appearance of texture or organisation whatever, even when viewed through the microscope. When this mass has become quite homogeneous, its volume is again reduced by one-half. The third stage, which occurs some considerable time after, instead of producing any further contraction, causes an expansion, so that the substance, reduced as it is to one-nineteenth of its original volume, swells up to the full extent of the latter. In this

stage it is still gummy, but the mass is porous, and full of cavities like a sponge. During these three stages there is a constant evolution of nitrous vapours, which become much more abundant during the third stage. This evolution of gas gradually diminishes during the fourth stage; the substance slowly loses its gummy quality and yellowish colour, and becomes so friable as to admit of being crushed into powder between one's fingers; it then becomes as white as sugar. It takes at least five months to see all these stages passed through. The sugary substance is very acid, nearly entirely soluble in water, and is composed of glucose, gummy substances, oxalic acid, a little formic acid, and another, which M. de Luca thinks is new, and with which, for the present, he has obtained salts of lead and silver. The glucose contained in this last transformation of gun-cotton has the taste and even the flavour of honey; it quickly reduces the tartrate of copper and potash, and ferments in contact with yeast, producing carbonic acid and alcohol. It appears from M. de Luca's experiments that gun-cotton will keep indefinitely in vacuo.—*Galignani's Messenger.*

#### SALES OF COPPER ORES.

COPPER ORES SOLD AT THE CORNWALL TICKETING, FOR THE QUARTER ENDING SEPTEMBER, 1864.

Mines.	Tons.	Amount.
Devon Great Consols	6593	£35,898 10 0
Clifford Amalgamated	3669	18,650 5 6
South Caradon	1427	14,450 12 6
East Caradon	1540	5,832 3 0
West Seton	1388	7,985 1 0
East Bassett	967	6,958 4 6
Wheal Seton	1344	5,987 8 0
Wheal Rose	1020	5,912 12 6
East Carn Brea	822	4,663 4 6
Hingston Down	911	4,259 4 6
Phoenix Mines	1269	4,212 11 0
Fowey Consols	864	4,115 17 0
Marke Valley	1260	4,085 4 6
South Tolgus	674	3,829 18 6
West Caradon	380	3,457 0 6
North Crofty	963	3,422 10 0
Wheal Friendship	414	3,046 8 6
North Trekerby	632	2,806 11 5
Bedford United	584	2,740 7 0
East Rosewarne	322	2,738 10 0
Wheal Bassett	385	2,549 7 0
Wheal Margery	619	2,539 7 6
East Bassett	254	2,348 6 6
Ramplyde	822	2,337 8 0
Great Wheal Busy	862	2,175 0 6
East Pool	597	2,052 0 0
Par Consols	368	2,042 3 6
New Wheal Martha	944	1,912 14 0
Carn Brea	368	1,882 2 0
Boscawen	358	1,754 0 0
East Russell	301	1,649 11 0
South Frances	276	1,608 19 0
West Damsel	355	1,483 6 0
Trevelow	237	1,480 13 6
Craddock Moor	109	1,383 12 6
Wheal Polmear	243	1,348 16 0
Rosewarne Consols	146	1,313 9 0
Devon and Cornwall	250	1,237 18 0
Tolcarne	315	1,262 2 6
Tywarthall	447	1,236 7 6
Copper Hill	244	1,154 6 6
Tolladden	290	1,146 1 0
Halibeggie	164	987 4 0
Levant	109	958 16 0
North Downs	179	936 3 6
Okef Tor	269	845 19 6
Great North Downs	169	835 10 0
Wheal Emma	250	821 7 0
Nanglies	162	813 12 6
Charlotte United	132	770 17 0
Brookwood	157	671 19 0
Gonamen	149	645 9 6
Wheal Crebor	122	638 3 6
New Rosewarne	71	610 0 0
Dolcoath	98	599 18 0
Gunnis Lake	98	568 8 0
West Tolgus	90	564 15 0
South Croft	84	560 17 0
East Grenville	105	537 1 0
St. Day United	148	517 16 0
Great South Tolgus	71	516 10 6
Wheal Buller	142	515 3 0
Glasgow Caradon	132	421 9 6
Wheal Creake	118	401 12 0
Yarner	62	379 13 0
West Stray Park	89	374 4 6
Pardon	62	336 17 0
Wheal Uny	73	330 18 0
Rosewarne United	70	321 18 0
Tincroft	60	307 10 0
North Robert	266	301 10 6
West Martha	70	299 5 0
New Treleigh	50	271 5 0
Molland	36	267 0 0
North Crofty	45	267 0 0
Wheal Grenville	79	249 14 6
South Croft	45	239 12 6
Great Brigant	28	238 2 6
Trefry's regulus	77	215 12 0
South Bedford	22	214 2 6
Craze	60	199 10 0
Wheal Arthur	14	198 2 0
South Dolcoath	50	196 9 6
Carn Camborne	23	190 6 6
Wheal Edward	37	171 4 0
North Gribbler	40	163 6 0
Wheal Emily Henrietta	32	163 2 0
Lady Bertha	56	161 0 0
Kelly Bray	57	151 5 0
Collacombe	22	150 3 0
Botalack	36	145 16 0
West Par	7	143 11 6
Condorow	23	141 9 0
Wheal Agar	15	102 15 0
Wheal Curtis	30	102 11 0
East Wheal Ellen	30	100 12 0
Boscawen	20	99 0 0
Great Fortune	11	97 12 6
South Carn Brea	16	96 8 0
Northridge Consols	31	95 6 0
West Trevelyan	20	92 10 0
South Bassett	17	78 12 6
Carn Consols	24	65 19 0
Alfred Consols	13	63 1 0
Great Wheal Alfred	15	56 0 0
Stevens's ore	19	55 10 6
Wheal Damsel	12	52 4 0
Gribbler and St. Aubyn	9	50 17 0
Wheal Harriett	10	48 0 0
Roskar	11	47 6 0
Falmouth and Sperris	21	45 8 0
North Dolcoath	12	42 10 0
East Cuddra	9	40 19 0
Buckingham's ore	18	39 3 0
East Cuddra	8	39 0 0
Raby's Ore	4	38 8 0
Wheal Prudence	13	36 14 6
Stray Park	13	30 4 6
Penden Consols	16	29 5 0
Wheal Crofty	11	28 1 0
Great Croft	2	24 0 0
Cock's Kitchen	5	17 0 0
Wheal Jane	5	17 0 0
Camborne Vein	10	17 0 0
Pembroke	2	0 1 0
Total	41,149	£211,885 13 6

COMPANIES BY WHOM THE ORES WERE PURCHASED.	Tons.	Amount.
Vivian and Sons	8006	£31,388 0 4
Freeman and Co.	2700	14,235 0 10
Greenfield and Sons	3570	21,884 10 1
Sims, Williams, and Co.	4467	20,940 16 0
Williams, Foster, and Co.	6205	34,185 4 0
Mason and Elkington	4518	24,409 11 6
Bankart and Sons	2900	10,484 7 3
Copper Miners' Company	2700	12,644 8 1
Charles Lambert	4380	16,900 0 3
Newton, Keates, and Co.	1269	7,000 2 4
Sweetland, Tuttle, and Co.	1727	4,924 1 5
Pencalld Copper Company	1637	9,889 11 5
Total	41,149	£211,885 13 6

THE SLATE TRADE—ITS STATE AND PROSPECTS.—The highly satisfactory position of the SLATE TRADE—the demand being so much greater than the supply—renders all information respecting it of general interest. Some three years since a descriptive pamphlet was issued by Mr. T. C. Smith, of which two editions of 5000 each were speedily disposed of; this is now in course of re-printing, with much original matter from practical authorities in the several districts, and particulars of most of the quarries at work, explanatory of their state and prospects. The new work will be published at 1s. each, and will shortly be ready.

#### SALES OF COPPER ORES.

COPPER ORES SOLD AT THE SWANSEA TICKETING, FOR THE QUARTER ENDING SEPTEMBER, 1864.

Mines.	Tons.	Amount.
Berehaven	1681	£14,546 8 6
Knockmahon	885	3,464 12 6
British Regulus	116	2,368 18 6
Ballycummisk	69	483 17 6
Cappagh	49	369 7 6
Irishtown	21	187 8 6
Holyford	4	40 10 6
London	2	52 7 6
Total	2882	£22,373 0 6
COLONIAL.		
Cape	822	£22,901 6 6
Kanmantoo	17	716 11 0
Concordia	24	422 0 0
New Cornwall	26	465 12 0
Total	889	£24,506 17 6
FOREIGN.		
Cuba	1478	£21,806 7 0
Cobre	400	4,098 1 0
Lisbon	63	1,135 11 6
Seville	83	149 8 0
Total	2024	£27,189 7 6
SUNDRIES.		
Copper ore	156	£ 815 16 0
Cobbings	91	502 16 0
Copper slag	122	436 0 0
Total	369	£ 1,754 11 6
RECAPITULATION.		
Foreign	2024	£27,189 7 6
British	2882	26,373 0 6
Colonial	889	24,546 17 6
Sundries	369	1,754 11 6
Total	6144	£79,762 17 0
COMPANIES BY WHOM THE ORES WERE PURCHASED.		
Copper Miners' Company	375	£ 3,273 18 1
Freeman and Co.	366	4,791 13 10
Greenfield and Sons	338	12,900 1 4
Sims, Williams, and Co.	463	9,361 16 0
Vivian and Sons	1233	16,127 16 6
Williams, Foster, and Co.	1134	15,887 7 0
British and Foreign Copper Company	119	3,801 10 6
Mason and Elkington	215	5,375 2 11
Bankart and Sons	21	166 11 4
Charles Lambert	21	3,288 4 6
Sweetland, Tuttle, and Co.	437	3,611 6 0
Pencalld Copper Works	70	1,860 5 0
Mona Copper Company	344	3,527 0 6
Total	6144	£79,762 17 0

#### TRUTH'S ECHOES, OR SAYINGS AND DOINGS IN MINING.

The Mining Share Market has not been very active this week, and shares generally have had a receding tendency. Still there are enquirers, and some little business doing unconnected with the public market, which will no doubt lead to transactions of a more general character. The usual fortnightly account took place to-day (Friday), but the settlement produced little or no change, as the account appears to be very light. GREAT GREAT CONSOLS have been enquired for, but no transactions reported.—WHEAL SETON has been enquired for, and with some quiet this week.—CLIFFORD AMALGAMATED are being dealt in, as of daily occurrence, but with no important change in price.—EAST BASSETT have been more freely offered, and prices have declined.—CROFT'S KITCHEN and TINCROFT are remarkably dull.—EAST CARN BREA have receded, and are offered freely at lower rates.—GREAT LAKES have been largely dealt in at fair market prices.—CARN CAMBORNE have varied, but left off better.—EAST GRENVILLE have been largely dealt in; fluctuations have followed, yet left off firmer.—WHEAL GRENVILLE are rather quiet at quoted prices.

SOUTH GRENVILLE have met with enquirers.—NORTH TREKREBY receded during the early part of the week, but have since slightly improved.—NORTH CROFT and NORTH DOWNS are more than ordinarily heavy, and freely offered.—GREAT WHEAL BUST have been in better demand, in consequence of the improved prospects of the mine, and prices advanced.—HALLENDEGLES have declined, and are only dealt in at nominal prices.—EAST ROSEWARNE have been done at minimum rates.—WEST CUNVERTON and CHIVERTON are dull at lower quotations.—EAST LOVELLS have considerably receded, but a large number have changed hands.—GREAT WHEAL VORS have been, and continue, in good demand; prices have advanced and likely to be firmer.—NEW ROSEWARNE have been freely enquired for at buyers' prices.—WHEAL MARGARET and PROVIDENCE have receded, and but little doing at minimum quotations.—EAST CARADON have been freely dealt in during the week; but the fluctuations have been frequent, still they left off firmer.—MARKE VALLEY have been quiet.—GLASGOW CARADON have been offered freely at lower rates, but have slightly improved.—WEST SHANT TON have been in request at advanced prices.—CARADON CONSOLS have changed hands at nominal figures.—MART ANNS are less enquired for, but appear firm.—TREKREBY are quiet.—KELLY BRAYS have been in good demand at advanced rates, consequent upon an important discovery.—HINGSTON DOWNS have been dealt in at market prices.—PRICE OF WALES have been in request at advanced prices, but since receded.—CREBORS have been largely dealt in, but without any corresponding advance.—EAST RUSSELLS have also freely changed hands at market prices, but left off weaker.—SOUTH DARENS and BEDOAR have been dealt in at nominal prices.—NORTH DEVONS are again improving, the prospects of the mine being more satisfactorily reported.

EAST CARADON.—The ends have fallen off in some places, and improved in others, so that the aggregate value of the whole is more than last week.—Canner lode: The 70 east is worth 8l. per fm., 80 east 10l., and the 80 west, 10l.—New lode: The 60 east is worth 6l., the 80 east 6l., and 80 west 7l. per fm. South lode: 70 east is worth 5l., and 70 west 15l. per fm. KELLY BRAY.—For a long time past the eastern ground has been looked upon by practical miners as possessing features of more than ordinary promise, and in driving the levels in that direction the lode became more productive and promising. The 25 lode has been extended further east laid open some good ground, with a large amount of gozan. A winze has been sunk near the end of the 25, and a fine course of ore has been discovered, worth full 60l. per fm., so far as seen; the ore in the gossan proves to be worth from average samples assayed 21l. for copper, and 1 oz. 13 dwts. 8 grs. of silver. This discovery will, no doubt, give a fresh impetus to the operations here, which for some time past have been of a very cheerful and encouraging character.

NORTH DEVON.—The general prospects of this mine have greatly improved, and the future returns likely to be greatly increased. The canner lode in the winze below the 10 is reported to be a splendid course of lead; this lode will be cut in the 20 in about a month, and in the 30 in two months. The last sale of 40 tons (on the 6th), the produce of two months, realised a profit on the workings for that period. The next two months is expected to be about 70 tons, 35 tons of which is dressed and in course of dressing. The several other productive levels yield the usual quantities of lead. A decline took place in the shares on the falling off in the canner in the adit level, but they are again advancing, consequent on the improvements recently made.

GREAT WHEAL BUSY.—Perseverance and energy are virtues that seldom pass unrewarded in mining. A short time since the general prospects here were far from being encouraging. In the 140, south of Offord, a very important discovery has been made, the lode on which they were driving is more than ordinarily large, and by no means prepossessing in appearance for upwards of 40 fms., but water was observed percolating through the side of the level. They cut into it, and found a course of ore worth 60l. per fm., without any south wall as yet. There is every reason to believe that this course of ore is standing the whole length of the level driven and to the bottom of the 130. This, no doubt, will be shortly ascertained. The eastern winze, below the 130, is worth 40l. per fm., and end 15l. At Mathew's shaft, below the 110, splendid stones of ore are coming in, and the 90 east is worth 50l. per fm., and the 70 east is valued at 45l. per fm. These changes have taken place within the past fortnight, and it is fully expected that in a few weeks the general prospects will be greatly enhanced.



ment of the mine is considered. A long run of tin ground has been laid open, and large quantities can be raised, but the deficiency of water for dressing retards returns. The engine-shaft is now completed to the 122, where they are opening for good tin both east and west, the lode having very much improved in sinking for the last 10 fathoms. The 100, west of Pearce's, has also improved. The 88, west of same lode, is also looking better. The 76 west has gone through some good tin ground, which is being taken away at a fair profit. There are several cross-cuts going south, which will intersect some well-known tin lodes, and one north, which will open three lodes, one of which is expected daily. There are several other points to which attention is being directed, and expected to become highly profitable. The loss on the last quarter amounted to 6021, with a sale of 20 1/4 tons of tin, but the current quarter will yield a great deal more.

**CARF CORNWALL.**—The water is now forked a few fathoms below the 20, which has enabled them to see the lode in that level, which is reported to be of a promising character, yielding good tin stuff in both ends. The lode is stated to be in a conical stream of ground, similar to other productive mines in the locality. There is little or no doubt that, when the water has been drawn from the deeper level, large quantities of profitable tin ground will be laid open.

**DARREN MINE.**—For some time past notice has been occasionally drawn to this property, as the operations have progressed. A short time since attention was directed to the cutting of a course of lead in the 15 ft. level, where the lode is of more than ordinary character and size. They have now gone through it, and is found to be 18 ft. wide, carrying large and solid branches or leaders throughout. They have now commenced to open it, and when fairly and in full operation east and west, immense returns may be expected. The slope in the back of the 10 is worth 15 cwt. per fm., and there are several other places looking remarkably well. In Oliver's adit the lode is improving, still yielding good work. There is little doubt but Darren will shortly prove what it has always been looked upon as, possessing the elements of a great and permanent mine.—**ROANOE WATER.** The prospects of this mine have greatly improved, and the more the lodes are being developed, the greater are the elements of future prosperity. At Gillman's shaft, sinking below the 20, a change has taken place, to which great importance is attached. The lode west of Grady's is much improved, yielding rich grey and purple ores. The eastern end has also improved, producing rich quality ore, from whence large returns will be made. There are several other places looking better, and from the general improvements which have been made, and the completion of the several points to which operations are being directed, valuable results are anticipated.

JAMES LANE.

From Mr. JAMES CROFTS:—The transactions on the Mining Market are truthfully represented by the daily press to be on a "limited scale," nor is there visible prospect of an early improvement, so far as buyers are concerned, who are thus, as it appears to the writer, neglecting an excellent opportunity to lay out capital to advantage. Sellers of shares, on the other hand, are plentiful, but the description of stock offered can scarcely be said to embrace the better class of shares, and is, therefore, chiefly in mines subject to calls, already so long repeated as to become onerous. The state of things proves particularly trying to such concerns as have settled down into a stand, and will lead, no doubt, to a majority of the adventurers, and a happy event for all of them. A very noticeable feature of the time, and one that affords another severe lesson to the credulous to warnings, is the almost total collapse of the Welsh gold shares, upon which a year since, or less, exorbitant premiums, and very large in amount, were obtained, and the value of shares now reduced to pence instead of pounds, but with one, it is to be hoped, good result—the conviction that except here and there, and quite as an exception to a rule, no gold exists in these kingdoms in quantity sufficient to pay the costs of extraction, however perfect may be the processes by which it is obtained. A list of these failures for 1863-4 would present a frightful amount of capital lost for ever, the majority of the new concerns having been ushered into existence with 50,000 down to 20,000 shares, and premiums in many cases obtained equal to twice the amount of limited capital, the whole of which has "vanished into thin air." It is hoped, however, that the lesson will not be lost on the public, provided they take into consideration that, although the business of mining is in all cases speculative, whether for copper, tin, or lead, and that, consequently, whatever precautions are adopted in buying, losses must accrue, they are not, nor ever can be, on so severe a scale as the Utopian schemes for profits on gold mining, whilst profits on all other British mines are very often sudden, unexpected, and large dividends, certain and continuous, and not liable to sudden failure, or without such warning as enables the prudent holder of shares to realize. The most experienced brokers, who really act as brokers, refrain from dealing in shares, and make the condition of mines and their future prospects a study, ought to be able to give at any time a synopsis of select stocks, either to lead or guide the adventurer, and at no time within late years has there been a better opportunity for any individual on the market possessing the attributes pointed out to make money for the public, first by advising the sale of doubtful shares, and next by purchasing sound ones, of which latter there is an extensive choice, at depressed prices, amongst the progressive, and abundance of dividend, paying from 10 to 20 per cent. free of all risk.

**NORTH CUNYVORTON (lead and blende)** continues to improve, and buyers of the shares at about 21 1/2. It is now estimated that, from blende alone, to be followed by lead ore, this mine will prove a success, a noticeable fact being that throughout the depressed period the shares have been steady. **WHEAL HOPE** have descended to a low figure—11 1/2. at 10, and, if reference be made to the eulogiums passed on its prospects by the promoters from time to time, must just now be a safe share as a speculation. The writer is of opinion that the office of this mine is one of a safe order for the bona fides of reports, and probably the worst days have come, and are likely soon to pass away, in reference to Wheal Hope. **NORTH TREBARTON** paid a dividend of 2s. 6d. in Feb. last, and has since ceased, but the mine improves, and the shares in value accordingly, and should be bought. **GATTON UNITED** is in 4000 shares, 10,000, already expended, and looks well for success by-and-by, and worth attention at the present low quotations. **VALE OF TOW** shares are always in demand. **BYNTAIL**, after a long and rather dreary career of late years, is indicating success of no mean order, "large deposits of ore" being spoken of as existing 30 fms. in depth. Few shares for sale. **BEDOL-AUR** has been visited this week, and carefully examined underground by the secretary (a practical miner), who reports it "rich" for ore in the 70 yard level from the Brynia vein alone, whilst the Belli Gwyn, which intersects the Brynia at right angles, is represented as on the point of being touched by the miners. Should this junction prove rich the mine will take a high position amongst those of the Holywell district; and, to facilitate explorations additional shares should be bought. **GATTON UNITED** is in 4000 shares, 10,000, already expended, and looks well for success by-and-by, and worth attention at the present low quotations. **VALE OF TOW** shares are always in demand. **BYNTAIL**, after a long and rather dreary career of late years, is indicating success of no mean order, "large deposits of ore" being spoken of as existing 30 fms. in depth. Few shares for sale. **BEDOL-AUR** has been visited this week, and carefully examined underground by the secretary (a practical miner), who reports it "rich" for ore in the 70 yard level from the Brynia vein alone, whilst the Belli Gwyn, which intersects the Brynia at right angles, is represented as on the point of being touched by the miners. Should this junction prove rich the mine will take a high position amongst those of the Holywell district; and, to facilitate explorations additional shares should be bought.

**F.S. FRIDAY.**—**BEDOL-AUR:** The report alluded to above will appear in the Journal (in extenso). The ore at surface is valued at about 70l., and on this vital question Mr. Thomas remarks:—"In consequence of the lately very much improved appearance of the mine, the quantity of ore will be greatly and speedily augmented, and he trusts in a short time to be able to congratulate the shareholders upon the sale of an important parcel." **NORTH CUNYVORTON** is again improved for blende, specimens of which are exhibiting on the market of rich quality.

From Mr. WM. LEELEA:—When, three or four weeks since, I expressed the gratification I felt at having witnessed the altered course of the Times with reference to monetary affairs, and the consequences to be apprehended from the multiplication of joint-stock companies, I could not, at the same time, avoid the expression of a doubt as to the continuance of "the leading journal" in the more enlightened and satisfactory course upon which it had entered. I now begin to hope that my doubt was groundless, for the Times continues to labour as energetically for the avoidance of panic as it had previously done for the prevention of a boom. The failure of the bank, and of the trading and commercial firms that were more or less dependent upon it, was spreading abroad a feeling of alarm with reference to other monetary establishments, especially to the new limited companies, which, if not checked, would be likely to produce very disastrous consequences, of "more than a local or individual character." Securities of all kinds were relapsing into a state of extreme depression. In the share markets severe falls were taking place, for many speculators in cotton, which has undergone such a declension in price, and many operators in banking and other shares, have been forced to realise, whether others were inclined to buy or not; and, as a matter of course, the probability of banking or finance failures was permeating in all minds—the very thing to induce a panic. In this critical emergency the Times again steps forward, to assure us "that there is nothing to excite the slightest disquiet in the minds of ordinary investors." The facts being only those that I have adverted to, "it would be discreditable to the commercial intelligence of the nation if anything like fright should be manifested." Limited monetary companies, instead of being a source of danger, as the Times formerly tried to make people believe, are really a means of safety. Any "danger that may exist in these directions will be short-lived" and "their power of mischief" is extremely "small." Looking at all these points, the conclusion is "that there never was a time when, speaking in a broad commercial sense, the country was entitled to look upon its position with greater confidence and satisfaction." The rate of discount is certainly high—that is, money fetches a high price; but, as the Times very justly observes, "if large profits are to be made, the rate to be paid for the use of the capital by which business is carried on must be proportionately high; persons have only to base all their arrangements and contracts on a full recognition of this fact, and then, whatever may be the terms to which the rate of discount may go, we shall simply have to congratulate ourselves that all classes—the merchant, the agriculturist, and the capitalist, are equal sharers in the national well-being." I have no occasion, under these circumstances, to change my policy. My advice has for some time been—if you hold shares in really sound undertakings, do not be induced to part with them under the impression of some impending crisis. The low price of the funds, the high price of money, and the depressed condition of the share market, are all capable of an explanation consistent with a sound, and therefore safe, condition of our commercial and monetary interests. Timid and nervous people will and must sell even the best securities, and those who buy them are, of course, fortunate. My advice has been, and still is—buy. When the opportunity of buying a good thing cheap presents itself, buy, and hold on.

When I stated, the week before last, that the GREAT LAXEY had, on the previous day, declared another dividend of 10s. per share, I was in possession of that fact only, and not of the details of the report which the directors made to the meeting at which the dividend was announced. I may be pardoned for saying that I feel much gratification at the statements made in the report, as to the prospects which the shareholders have before them, as well as to the substantial benefits they have already obtained in the form of dividends. The accounts showed that, after the payment of 6875l. for dividends in March and June, there was a balance at the end of the last-named month of 9029l. in favour of the company, and which, in the middle of September, amounted to 11,388l., only the long drought of the summer having limited it to that sum. This is pretty well, however. The directors not only paid the March dividend, but in June they declared another, at the rate of 25 per cent. per annum, on the capital of the company, and a third on Sept. 15, at the rate of 50 per cent. per annum. This has all been fairly earned; the company having made a profit of more than 10,000l. in six months, 3000l. of this being the profit of the last month's working only. The shareholders in this mine perform the not every-day feat of "eating their cake and still having it;" for the frequent discoveries and extensive reserves afford abundant evidences of continued prosperity, and the directors have very wisely provided against any recurrence of impediments arising from the want of water, by putting up a new and powerful steam-engine to work the crushing-mills and jiggers whenever the water-power is deficient. They lay two week sam-

pled 120 tons of copper, 100 tons of lead, and 300 tons of blende. Those who adopted my advice in April last, and bought shares at 4l. 10s., have good reason to be satisfied with both what they have received and what they have to come, for an indefinite period.

The Share Market is still very inanimate, which is only saying, in another form, it is a good time to purchase. Amongst the most inviting, because promising, enterprises, just now, are the SOUTH DARREN, where all the operations are being carried on with energy and judgment, and are producing very favourable results. The lode in the 30, which continues worth 1 1/2 ton of copper and 1 ton of lead ore per fathom, gives very promising indications of much larger quantities. The DARREN, which opens well; the slope in the back of the 10 yielding about 15 cwt. of ore to the fathom, and the reports, in other respects, being favourable. The NORTH PHOENIX MINES, in which the sinking of the shaft had been for several weeks suspended for want of water, are again well at work, with good indications of metal. The EAST TREBARTON, which also goes on improving throughout, the winze below the adit west appearing to go down into a new run of tin ground. The GREAT SOUTH CHIVERTON, which sustains all my anticipations of becoming a very productive mine. The BEDOL-AUR, which has just been specially inspected, and most favourably reported of, presents points of improvement almost every day; they have more than 5 tons of lead ore at surface, of good quality, which they are going on to increase, and will soon have a fine quantity for sale.

## BLASTING.

In a late number we described some of the methods adopted in one of the preliminary operations of blasting, sinking the holes for the reception of the gunpowder. We then stated that the execution of this work involved a very considerable expenditure, one, we may add, which there appears to be but small chance of reducing. Instances are occasionally met with, however, where the formation of the rock is such that holes are unnecessary, natural cracks and fissures answering the same purpose. A far greater quantity of powder is used, of course; the question of economy being decided in such exceptional cases by the relative expense of the powder, and of holes. Thus the price of the labour which would have been expended on the latter is devoted to the purchase of the former instead, leaving, possibly, a margin of direct profit. It may even occur that the rock is of so open a texture that it would be impossible to use powder with any effect in any other way. It is exceedingly difficult to drive holes; for instance, in many of the varieties of limestone, the whole mass, as it lies in its primitive bed, being permeated in every direction by fissures, which in the first place permits the quiet escape of the powder gases, and, in the second, causes so much trouble by binding the chisel points of the jumpers, and preventing their revolution, that it is next to impossible to use them. It is almost needless to say that such stone is useless for building purposes, but it forms an excellent material from which to prepare lime suitable for agriculturists. This rotten stone too frequently overlies beds of the very best hard stone procurable; and it, therefore, becomes necessary to clear it away in order that this last may become accessible. The fissure system of blasting is, however, most usually employed in mining or tunnelling operations. Thus the great Lake Superior copper mines of North America are worked in this way almost exclusively. A crevice at the back of a given mass is selected, and, if necessary, widened by proper tools, until it is capable of receiving a moderate quantity of powder. This having been inserted, the crevice is filled up with fine sand, and the charge exploded. Probably very little effect is produced in the first instance, but the operation is repeated, and the dimensions of the crevice are enlarged. Slight natural partitions, too, are broken down, and thus the succeeding charges find their way to the very depths of the rock. Once this takes place, enormous masses are thrown down. All the operations are conducted in these mines on a very extensive scale, 25 kegs of powder, or considerably over 600 lbs., being now and then fired in a single blast.

The holes once sunk, the next point calling for consideration at our hands is the quantity of powder to be employed. It is certain that, as a rule, too much is used habitually; quarriesmen like heavy charges, because they, according to their light, believe that plenty of powder can alone prove effective. But powder is dear, costing from 50s. to 75s. per cwt., and, therefore, economy in its use is desirable. Besides this, however, heavy charges are always dangerous, in that they usually cause the flight of a whole army of splinters to very considerable distances, and many a poor fellow may thus trace the loss of an eye or a limb to the lavish use of powder. Many expedients have been devised to prevent the flying about of loose stones. In Scotland a quarry-shield, as it is termed, consisting of a piece of old boiler plate a few feet square, is placed over each blast, and weighted with heavy stones. When the face of the rock is vertical the shield is suspended against it. The shield answers quite as good a purpose as many other inventions, all acting on the same general principles, which have been tried from time to time, and abandoned because of their expense. The best means of avoiding splinters is, however, to be found in using only just such charges as may be absolutely necessary to thoroughly shake and rend the rock. What the charges may actually be will depend in some measure on the qualities of the stone, and all doubts on the subject may, of course, be easily set at rest by a few experiments. In every case it is necessary to determine the length of the "line of least resistance," and this a thoroughly good foreman will do at a glance with great accuracy. The line of least resistance may be defined as that in which the powder gases will meet with the least opposition in their escape. It does not necessarily follow that the smallest resisting section of the rock is defined by this line, as a heavy mass of earth may give as much resistance as a given thickness of stone. It is sometimes far from easy to make quarrymen comprehend exactly what the words really mean, but the results obtained will usually well repay the labour of teaching. We have met with men who took an interest in the question which bordered on the ludicrous, measuring this line to 1/2 inch, and weighing out the charges with absurd precision. In such hands it is astonishing how much work can be got out of a given weight of powder, and although such refinements may be and are out of place, they are certainly errors on the right side. We have said that the actual charges will depend a good deal on the quality of the stone. The proportion which they must bear to the line of least resistance is practically unalterable, varying as the cube of the length of that line in feet. For ordinary rock the proper charges in pounds will be 1/32 of the line of least resistance in feet, or, what is the same thing, half the cube of the line of least resistance in feet will be the charge in ounces. Thus, the line being 1, the charge will be 1/32 of an ounce; the line being 3 the charge will be 1 1/2 oz.; or one-half of 27, the cube of 3; and so on. Other rules have been laid down, but this is so generally applicable and convenient that it has been almost universally adopted since it was first enunciated by Burgoyne, many years ago.

Perhaps nothing connected with the operations of the quarry or the mine has given rise to such bitter feuds and warm discussions as the kind of tamping to be regarded as the best. We find, on the one hand, an able and influential party of French engineers maintaining that loose sand poured in above the powder will afford sufficient resistance to insure the fracture of any rock. On the other side is arrayed an equally powerful body of English engineers, who decide that sand is absolutely useless, and its practical employment very near a myth. Thus in Cachin's "Mémoire sur la Digue de Cherbourg," written in 1820, we find the following:—"In blasting at Cherbourg the use of the needle and rammed tamping has long been abandoned. The priming straw is retained, and the tamping is of fine sand, poured in. It has been proved by long experience that the effect of the explosion is as great by this method as by the more laborious operation of ramming." We could quote many other and more recent authorities to the same effect. In America a great number of experiments were carried out years ago, which, it is said, went to prove the same thing. General Pasley, Sir John Burgoyne, and many other authorities, assert directly the contrary, and our own experience goes to show that used in any possible way, with reasonable charges of powder, loose sand, as a tamping material, is nearly valueless. In very deep holes, and with excessive charges, the rock is occasionally fractured, but the uncertainty of obtaining such a result is quite sufficient to condemn the use of the material. There is just one condition under which it might possibly be used with advantage. This is in the case of chambered holes, such as we treated of in our first article. There can be no question that sand can be used so quickly, and with such facility, that it would be invariably employed if good, or even fair, results could be obtained; and that, notwithstanding these points in its favour, it is not so employed, is the most conclusive evidence against it as a tamping material.

Even in the case of small blasts, such as are to be met with continually in the minor operations of the quarry, the time consumed in using ordinary clay or broken stone tamping is so considerable that it would be highly expedient to adopt any other and more expeditious system if possible. Clay or broken brick requires to be rammed very hard, and this ramming involves a good deal of labour as well as time. When properly done it seldom fails, and in well-managed quarries and mines the proportion of blasts which fail from the blowing out of clay tamping forms but a very small percentage of the entire number driven each day. Many devices have been proposed to supersede tamping, either in whole or part. The most feasible was used first, we believe, in the quarries from which the stone for the great pier at Kingstown was procured. It has, nevertheless, been

patented very recently. Substantially this patent (?) tamping consists of an iron cone, the diameter of the base of which nearly corresponds with that of the hole. The charge being inserted, this cone is dropped down the hole so as to rest directly on the powder, a small groove in one side being provided to make room for the fuse cord. As first tried, the space above the cone was filled in with loose broken stone in 1/2-in. cubes. Such a cone at the end of a rod of iron, with but 16 in. of stone over it, in course of some experiments at Chatham, supported a weight of 16 tons. Its action is very simple, consisting simply in the wedging and constant binding of the superincumbent stone against the sides of the hole by a slight upward movement of the cone. Even with fine sand, a 1 1/2-in. cone, in a 2 1/2-in. hole, supported 10 tons. Notwithstanding this great measure of resistance, the device proved good for very little, the gases apparently passing round the plug, and blowing away the broken stone first, and then the cone. Another plan was then tried. Conical "feathers," or wedges made of half-inch round iron, drawn to a point, replaced the broken stone, being driven in gently round the plug. As soon as the charge is fired this last rises slightly, and flattening the "arrows" a little, binds fast.

Better results have been obtained from this mode of tamping than from any other known. It is at once, expeditious to a degree, and effective. The only objections are that it is all but essential that a few inches—six or eight, of thoroughly good clay tamping should be interposed between the cone and the powder, and that the wear and tear of the arrows is excessive, and, therefore, a little costly. It may happen, too, that the rock does not split, and then some time is usually lost in withdrawing the cone and arrows. All things considered, the device is a good one, however, and may be frequently employed with great advantage. Where clay for tamping is scarce or unobtainable—nothing unusual—and may sometimes be used with good effect, by filling the hole with it within 4 or 5 in. of the top, and then driving in a barrel-shaped iron plug with a heavy hammer above it, so as to occupy the vacant space. By this means the sand is prevented from blowing out, and when properly applied over loose sand, these plugs enable it to give greater resistance than equal depths of clay.

—Building News.

**THE LAW OF MINES.**—The new work on the Law of Mines, by Mr. Whitton Arundell, the only cheap book in which the entire subject is completely and ably handled, and no work can be more profitably studied, after the company is formed, than this. The law of mines is in this work treated quite irrespective of the law of mining companies, which are entirely governed by the new Joint Stock Companies Act of 1862. Mr. Arundell's work will be forwarded from our office on receipt of a Post-office order for 4s.

**SOUTH CLIFFORD UNITED MINES.**—WANTED, for the above mines, a 60 in. cylinder ENGINE (not less) and BOILERS, complete. Address, stating price, &c., to LOUIS LEVISON, Esq., Chilian Consul, 31, Threadneedle-street, London, E.C.

**ASSAY BALANCE,** by Oertling, as good as new, weighs accurately 1-1000th part of a grain, with weights complete, suitable for gold, silver, or diamonds, cost £20, for less than half the cost price. Apply to Mr. CHARLES LOW, 3, St. James's-road, Holloway, N.

**TIN-PLATES**—AGENCY for the SALE of WANTED, by a FIRST-CLASS HOUSE in the MIDLAND DISTRICT. Address, "Tin-plates," MINING JOURNAL OFFICE, 26, Fleet-street, London, E.C.

**PARTNERSHIP, SLEEPING OR ACTIVE.**—WANTED, a GENTLEMAN with £3000, to JOIN the ADVERTISER in WORKING a VALUABLE PATENT IN CONNECTION with COLLIERY WORKING. Address, "R. W. R.," 11, South-street, Finsbury, London, E.C.

**THE ADVERTISER,** who has an extensive connection, is DESIROUS of UNDERTAKING the SALE of HEMATITE, YORKSHIRE, and GOLD BLAST FIG-IRON, and of MALLEABLE BARS, IRONS, and PLATES, in the WEST RIDING of YORKSHIRE. Address, "C. E.," MINING JOURNAL OFFICE, 26, Fleet-street, London, E.C.

**THE ADVERTISER,** having considerable experience in mining, OFFERS HIMSELF to CAPITALISTS to INSPECT and REPORT on the different MINES of the counties of CORNWALL and DEVON. A special report and advice given relative to East Grenville, New Rosewarne, and Nangiles. Address, "C. B.," care of Messrs. Roberts and Co., 87, London-wall, London, E.C.

**WANTED IMMEDIATELY, TWELVE HUNDRED to FIFTEEN HUNDRED YARDS of 3 in. CAST-IRON FLANGED PIPES,** either new or second-hand. State lowest price, &c., to "R. W. R.," 11, South-street, Finsbury, London, E.C.

**TO MINING COMPANIES AND OTHERS.**—AN OFFER WANTED for ONE of BLAKE'S PATENT STONE BREAKING MACHINES, made by Marsden, of Leeds, six months ago, and never having been used. It cost £180, delivered in Leeds, and is now near St. Austell, in Cornwall. Apply to Mr. CRAVEN, 6, East Parade, Leeds.

**VALUABLE COPPER MINE FOR SALE.**—This mine, already extensively developed, has yielded about £20,000 worth of ore. The plant and machinery are of a most superior character. The main shaft is sunk and timbered 40 fms. below adit. A comparatively small further outlay will, there is little doubt, render this property a good dividend-paying mine. It has a powerful steam-engine, capable of draining the mine to twice its present depth below adit. Engine-houses, pumps, tramways of great length, water-power, crusher, dressing-floors, smithy, carpenter's shop, powder magazine, office, agent's dwelling-house, cottages, sheds, and everything, in short, requisite for immediate and extensive operations. Being contiguous to the sea, coals, &c., can be landed, and ore, &c., shipped from the mine itself. The property is extensive. The lease has 31 years to run, and there are many ascertained lodes besides those chiefly explored. Most favourable reports on the mine, from a well-known mining engineer, have been received. The vendors would entertain an offer from a respectable company, and take the larger portion of the purchase money in shares. Apply to Mr. J. HOLAN, 62, Moorgate-street, E.C., London.

**A SPLENDID INVESTMENT.**—FOR SALE, some SHARES in a LARGE and IMPORTANT COLLIERY COMPANY (LIMITED), in SOUTH WALES. The quality of the coal is excellent, and has been approved by the Admiralty. Every facility exists for carriage to the shipping port; and, from a recent report upon the property, it appears capable of turning out 1000 tons per day. All calls are paid, and, owing to unavoidable circumstances, the shares will be sold at a great reduction from the original cost. As an investment it will pay about 15 per cent. per annum. Address, "C. S.," City News Rooms, Cheapside.

Prize Medals—International Exhibition, Class 1 and 2.

**PATENT PLUMBAGO CRUCIBLES.**—The CRUCIBLES manufactured by the PATENT PLUMBAGO CRUCIBLE COMPANY are the ONLY KIND for which a MEDAL has been AWARDED, and are now used exclusively by the English, Australian, and Indian Mints; the French, Russian, and other Continental Mints; the Royal Armaments of Woolwich, Brest, and Toulon, &c.; and have been adopted by most of the large ENGINEERS, BRASSFOUNDERS, and REFINERS in this country and abroad. The GREAT SUPERIORITY of these melting pots consists in their capability of melting on an average 40 pourings of the most difficult metals, and a still greater number of those of an ordinary character, some of them having actually reached the EXTRAORDINARY NUMBER of 96 meltings. They are unaffected by change of temperature, never crack, and become heated much more rapidly than any other crucibles. In consequence of their great durability, the saving of waste is also very considerable.

The company have recently introduced CRUCIBLES SPECIALLY ADAPTED for the following purposes, viz.:—MALLEABLE IRON MELTING, the average working of which has proved to be about seven days; STEEL MELTING, which are found to save nearly 1 1/2 ton of fuel to every ton of steel fused; and for ZINC MELTING, lasting much longer than the ordinary iron pots, and saving the great loss which arises from mixture with iron.

For lists, testimonials, &c., apply to the Patent Plumbago Crucible Company, Battersea Works, London, S.W.

Fully described in the MINING JOURNAL of July 5.

**MESSRS. W. EASSIE AND CO.,** RAILWAY SAW MILLS, MOULDING SHOPS, &c., AND GENERAL TIMBER CONVERTING YARDS, HIGH ORCHARD, GLOUCESTER.

Are PREPARED to FURNISH QUOTATIONS for any description of WOOD FITTINGS for home or foreign RAILWAY STATIONS, BARRACKS, EXHIBITIONS, DWELLINGS, WAREHOUSES, FACTORIES, STORES, GLASS HOUSES, &c. They will also CONTRACT for WOODEN FITTINGS of ANY KIND in CONNECTION with IRON BUILDINGS, &c.

The above would in all cases be designed ready fitted, so as to ensure speedy re-erection. Numerous drawings of works of the above nature, already executed, can be seen on application, and references permitted to the engineers thereof.



The above Firm supply Barrows, Carts, Wagons, temporary Huts, permanent Shedding, and every description of Miners' and Contractors' Tools, at the very lowest prices. References can be given where many thousands of the above have been supplied to different parts of the world. Prices quoted on application. Delivered to any station, or home or foreign port.



**MINERALOGY—KING'S COLLEGE, LONDON.**  
 PROFESSOR TENNANT, F.R.S., will give, during the ensuing season, TWO COURSES OF LECTURES ON MINERALOGY, with a view to facilitate the study of GEOLOGY and of the APPLICATION OF MINERAL SUBSTANCES to the ARTS. One course will be given on Wednesday evenings, from Eight till Nine, beginning on October 12th; the other on Friday mornings, from Nine to Ten, beginning on Wednesday and Friday mornings, from Nine to Ten, beginning on Friday, October 7th; fee, £2 2s. R. W. JELF, D.D., Principal.

**JOHN CALDECOTT, PUBLIC ACCOUNTANT AND AUDITOR** (Author of a "Practical Guide to Account Keeping") is PREPARED TO ATTEND PUBLIC COMPANIES OR PRIVATE PARTNERSHIP FIRMS ENGAGED IN MINING OR MANUFACTURING, to OPEN, POST, AND BALANCE sets of ACCOUNTS, or to AUDIT, INVESTIGATE, or INTRODUCE HIS SYSTEM OF CHECK AND RESULTS with debit and credit balance account, demonstrated to be correct.—Office, No. 19, Pepper-street, Chester.

**NOTICE.—THE PARTNERSHIP** hitherto existing as Messrs. STOCK AND CO., SILVER-LEAD SMELTERS, at PENCALVD, in the county of GLAMORGANSHIRE, has been DISSOLVED by MUTUAL CONSENT, as far as regards Mr. Jesse Hall, who has disposed of his interest to Mr. Francis Fryor, of Clarendon, Redruth, Cornwall. The business, however, will be carried on as heretofore, under the firm of Stock and Co.—Dated September, 1864.

**DISSOLUTION OF PARTNERSHIP.**—Notice is hereby given, that the PARTNERSHIP lately carried on at the Dan-y-Graig Works, near Swansea, in the county of Glamorgan, under the style or firm of JENNINGS AND CO., as ARSENIC MANUFACTURERS and ORE SMELTERS, has been this day DISSOLVED BY MUTUAL CONSENT, all the partners retiring therefrom, except Albert Charles Hadland, by whom all debts due to and owing from the late partnership will be received and paid, and by whom the business will in future be carried on, under the firm of the Dan-y-Graig Smelting Company.—Swansea, September 16, 1864.

**TO CAPITALISTS—SILVER MINES IN MEXICO.**  
 WANTED, EIGHT THOUSAND POUNDS, to EXTEND the WORKING of these MINES, to be repaid £2000 per annum, exclusive of interest. The proprietors will give exceedingly liberal terms, satisfactory security, and will pay the passage out to Mexico to a really bona fide person, so as to enable him to satisfy himself upon every point previous to advancing the money.—Further particulars will be forwarded to principals or their solicitors upon application to Mr. J. M. ELLIOTT, accountant, 1, New Brown-street, Manchester.

**TO ENGINEERS, CONTRACTORS, AND OTHERS.**  
 PERSONS DESIROUS OF PURCHASING THE PATENT RIGHT OR ROYALTY FOR JEWELL'S PATENT FLUE AND TANK BOILER ARE REQUESTED TO FORWARD OFFERS to his agent, Mr. W. T. RAWLSE, Branch Patent Office, 39, Hudge-street, Bristol, where plans and copy of specification may be obtained.

**WIRE ROPES FOR SALE, BY PRIVATE CONTRACT.**  
 ONE WIRE ROPE, 196 fms. long; EIGHT ditto, each 183 fms. long; and TWO ditto, each 116 fms. long; all  $\frac{1}{4}$  in. circumference, weighing 22 lbs. per fm., and made of the best charcoal iron wire, by Messrs. Glass, Elliott, and Co.—Applications to be addressed Messrs. Cochran, Glynne, and Co., Clifton Suspension Bridge Works, Bristol, where every information can be obtained.

**COAL MINES AND LIMESTONE.—TO BE LEASED,** the COAL AND LIMESTONE UNDER about FOUR HUNDRED ACRES of LAND, within 14 miles of Birmingham. A railway passes through the property, by which convenient and direct access is had to all markets.—Apply to EDWARD HEDLEY, Esq., mining engineer, Derby.

**SWANSEA COPPER ORE WHARVES.**  
 TO IMPORTERS OF FOREIGN COPPER, LEAD, AND CALAMINE ORE.

GENTLEMEN.—We beg to inform you that, in consequence of the retirement of Messrs. W. and J. M. Williams from the copper ore trade, which they have carried on here for so many years past, we have resolved to enter upon that business, and for which purpose we have secured most eligible wharves, on the west side of the North Float, where vessels drawing 20 ft. of water can get alongside at all times. These wharves are now covered in, the floors being made of concrete to prevent waste of the ore. A powerful steam crusher has lately been erected on the premises, and is now in working order.

The business we purpose carrying on is that of COPPER ORE WHARFING, combined with metal and other general agencies, which will be managed by our Mr. Thomas Eiford, who for 20 years has filled an important situation under Messrs. Williams, Foster, and Co., and for the last eight years has had the entire management of their large copper smelting works, and copper and metal rolling mills, in this locality, as well as the copper ore business of Messrs. W. and J. M. Williams, which we trust will be a sufficient guarantee to our friends that any business they may entrust to our care will be conducted with the most scrupulous attention to secure the best results for their interests.

In consequence of the large number of very extensive Copper smelting works concentrated in this immediate locality, this market affords greater competition for ore than perhaps any other in the world, there being now no less than sixteen distinct companies competing for ore sold at the public ticketing, every two or three weeks. There is also a good demand for lead and zinc, or calamine ore, several large lead and spelter works having been established in this district for some time past, and new ones are in course of erection.

Soliciting a share of your consignments of ore, regulus, and slab copper to this port, as well as a share of any general business you may have to transact in this quarter, We remain, Gentlemen, your obedient servants,

ELFORD, WILLIAMS, AND CO.  
 REFERENCES:—Messrs. Williams, Foster, and Co., London and Liverpool; Messrs. Williams, Harvey, and Co., London and Liverpool; the Glamorganshire Banking Company, Swansea; Messrs. Alex. Bell and Sons, No. 8, Finch-lane, London; Mons. Armand de Lacombe, Madrid.

**THE NEW CORNISH LEAD AND COPPER MINING COMPANY (LIMITED).**—Notice is hereby given, that a SECOND CALL of TWO SHILLINGS AND SIXPENCE PER SHARE has been made on the New Shares A in the company, such call to be paid to the bankers of this company, Messrs. Attwood, Spooner, Marshall, and Co., at their banking house, in New-street, Birmingham, in the county of Warwick, on or before Monday, the 31st day of October, 1864.

By order, J. CHAMBERLAIN BARLOW, Sec.  
 Offices, 39, Waterloo-street, Birmingham, September 26, 1864.

**FORTUNA COMPANY (LIMITED).**—Notice is hereby given, that the HALF-YEARLY MEETING of the shareholders in this company will be HELD at this office, on THURSDAY, the 6th October, at Two o'clock P.M., to receive the accounts, balance-sheet, and reports of the directors and auditors for the half-year ending 30th June last, and for the general purposes, as authorised by the Deed of Settlement.

By order of the Board, J. B. COLOGAN, Sec.  
 No. 5, Queen-street-place, Upper Thames-street, London, Sept. 23, 1864.

**LIANES LEAD MINING COMPANY (LIMITED).**—Notice is hereby given, that, in conformity with the Deed of Settlement, the HALF-YEARLY GENERAL MEETING of the shareholders in this company will be HELD at this office, on THURSDAY, the 6th October, at One o'clock P.M., to receive the accounts, balance-sheet, and reports of directors and auditors for the half-year ending 30th June last, and for the general purposes as authorised by the Deed of Settlement.

By order of the Board, J. B. COLOGAN, Sec.  
 No. 5, Queen-street-place, Upper Thames-street, London, Sept. 23, 1864.

**THE CHILIAN MINING AND TRADING COMPANY (LIMITED).**  
 Incorporated under the Companies Act, 1862, with limited liability.  
 Capital £340,000, in 17,000 shares of £20 each.  
 Deposit on application £1 per share, and on allotment £4 per share.  
 Calls not to exceed £5 per share, and at intervals of not less than three months.  
 In the event of no allotment being made the deposits will be returned in full.

**JOHN VANNER, Esq.,** Coleman-street (a Director of the City Bank).  
**JAMES ALFRED HALLETT, Esq.,** (Messrs. Hallett, Ommann, and Co., Bankers), Great George-street, Westminster.  
**Rear-Admiral GEO. GREVILLE WELLESLEY, C.B.,** 10 Wilton-street, Grosvenor-place.  
**THOMAS WOOD HEATON, Esq.,** Bolton.  
**HAMPSON WATERS, Esq.,** Gillingdune, Falmouth.  
**WM. MULLER, Esq.,** 11, Southwick-crescent, Hyde Park-square (of the firm of A. Hemenway and Co., Valparaiso).  
**THOMAS GARLAND, Esq.,** Fairfield, Redruth, Cornwall.  
**HENRY KENDALL, Esq.,** 12, Old Broad-street (Peruvian Consul).  
**WILLIAM FAWCETT, Esq.,** Salisbury (Chairman of the East Caradon Mining Company).

(With power to add one to their number.)  
**BANKERS.—The City Bank.**  
**The Consolidated Bank (Limited),** Manchester.  
**The Liverpool Union Bank, Liverpool.**  
**Messrs. Tweedy, Williams, and Co., Truro.**  
**Solicitors.—Messrs. Stuart and Massey, 5, Gray's Inn-square.**

**SECRETARY (pro tem.)—Henry Eiford, Esq.,**  
**OFFICES.—83, UPPER THAMES STREET, E.C.**  
 (Formerly the Mines Royal Office.)

**ABRIDGED PROSPECTUS.**  
 This company is formed for the purpose of purchasing and working two copper mines in Chili, called Descubridora and San Pedro, and of acquiring certain valuable freehold premises, plant, and stores, together with an existing trade in connection therewith at the ports of Chanaral and Pan d'Azucar, and a distillery of water from the sea.

The profits for the year 1863, arising from the mines and other sources of revenue, have been at least £75,000, estimating three unworked cargoes at 18s. 6d. per unit. The ores have been sold in England, by Messrs. Frederick Huth and Co., of London and Liverpool, whose accounts may be seen at the offices of the company.

It thus appears that the net profits to the company may be estimated at upwards of 20 per cent. per annum, with a prospect of increase as the mines become further developed.

Two cargoes of ore, containing about 1000 tons, have already arrived to the account of the company, and three cargoes, containing about 1600 tons, are on the way.

A copy of the Memorandum and Articles of Association can be inspected at the offices of the company, and of the solicitors.

Detailed prospectuses, and forms of application for shares, can be obtained at the offices of the company, of the bankers and brokers to the company, and of the solicitors.

**CAUTION.—BEFORE BUYING A MINE SHARE READ** TREVOIR AND CO.'S "MINES AND MINING," and learn the enormous risks and heavy losses awaiting all who enter on mining without experience. To the young adventurer its perusal will save scores, or perhaps hundreds of pounds.

Per post 18 stamps. C. CHAPMAN, 3, Upper John-street, Barnsbury-park, London, N. Beware of gratuitous circulars and advice, and most new mines.

**In the Court of the Vice-Warden of the Stannaries.**  
**Stannaries of Cornwall.**

In the Consolidated Causes of GATLEY v. RABEY the younger; and ARNALL v. RABEY the younger.

IN RE SOUTH WHEEL LEISURE MINE.

**TO BE SOLD,** pursuant to two several Orders made in the above Causes, and dated respectively the 17th day of August last, BY PUBLIC AUCTION, at SOUTH WHEEL LEISURE MINE, in the parish of Fernanabulco, within the said Stannaries, on Tuesday, the 4th day of October next, at Eleven o'clock in the forenoon, either together or in lots, the undermentioned MINING MACHINERY and MATERIALS, viz.:—

ONE 24 in. cylinder PUMPING ENGINE, with workings complete; balance-bob, BOILER about 9 tons.  
 About 30 fms. 9 in. pumps.  
 Doorpiece.  
 Windrope.  
 1 horse whim.  
 Beam and beam heads.  
 Whim rope, 120 fms.  
 100 fms. of  $\frac{1}{4}$  in. rope.  
 20 fms. of  $\frac{1}{4}$  in. ditto.  
 6 wheelbarrows, carpenter's bench, shears, 7 fms. complete; 5 pulleys, a quantity of new and old iron, and new and old timber, about 700 lbs. of powder, about 60 coils of safety-fuse, blacksmith's bellows, anvil, vice, blocks, saw pit frame, and sundry other articles in general use in mines. Account-house furniture, consisting of bedstead, hair mattress, 5 tables, and other articles.

For viewing the same, application may be made to the officer of the Court in possession, and for further particulars to Messrs. HODGE, HOCKIN, AND MARRACK, Solicitors, Truro. Dated Registrar's Office, Truro, September 20, 1864.

**IMPORTANT SALE OF COLLIERY PLANT, POWERFUL WINDING AND PUMPING ENGINES, STEAM BOILERS, MAIN CRAB AND GIN, LARGE PATENT METAL PULLEYS, 19-in. and 16-in. PUMPS, WIRE AND HEMP ROPES, MALLEABLE IRON PIT CADES, SPEARS AND SPEAR PLATES, SIXTEEN HUNDRED YARDS OF RAILS, ASHLAR STONE, FIREBRICKS, SMITH'S TOOLS, &c., &c., FOR SALE BY AUCTION at CHILTON COLLIERY, FERRY HILL RAILWAY STATION, in the COUNTY OF DURHAM.**

**MR. GEORGE HARDCASTLE** has the honour to announce that he is instructed by the Trustees of the Right Hon. the Earl of Eldon to SELL BY AUCTION, at the CHILTON COLLIERY, on Tuesday, October 4, 1864, all the VALUABLE WORKING PLANT, comprising—

ONE NEW DOUBLE ACTION HORIZONTAL HIGH PRESSURE WINDING ENGINE, by Murray, of Chester-le-Street, with two 22-in. cylinders, 4-ft. stroke, metal fly-wheel, 18 ft. diameter, and metal drum, 8 ft. 9 in. by 4 ft.  
 ONE HIGH PRESSURE PUMPING BEAM ENGINE, 40-in. cylinder, and 6-ft. stroke.  
 ONE HIGH PRESSURE WINDING ENGINE, 25-in. cylinder, 5-ft. stroke, with metal fly-wheel, 18 ft. diameter; rope rolls, 9 ft. diameter; and malleable iron crank.

FIVE STEAM BOILERS—three 30 ft. long, two 25 ft. long, and all 6 ft. diameter.  
 ONE SMALL BOILER, 8 ft. by 3 ft. 4 in.  
 TWO METAL PATENT PULLEYS, 10 ft. diameter, Mamel shear legs, pulley frame, and stays, brass carriages, &c.

Two new malleable iron pit cages, 7 ft. 6 in. long, 2 ft. 10 in. broad, and 4 ft. 6 in. deep; pit cradle and chains; new main crab, with oak main piece, 18 in. diameter; new jack gin, with 9-ft. drum, over trees, frames, and uprights; five 19-in. pumps, fourteen 16-in. pumps, and one tapering pump—all 10 ft. long; one 15-in. working barrel, 12 ft. 6 in. long; one bucket doorpiece, 6 ft. 6 in. long; one powerful three-throw horse crank force pump, 12-in. stroke, and 8-in. pumps—double powered winch and chain, red pine spears, malleable spear plates, bottom rods, bucket joints, buckets and chucks, pump bolts, cross bars, butts, bars and bolts, leather hogs, lead weights, leather hose pump and spelt slings; eight fire doors, fire bars, and boiler fire tools; two 3-in. round wire ropes, 60 fms. each; two 3-in. flat wire ropes, 65 fms. each; one 10-in. hemp crab rope; one 7-in. hemp crab rope, and sundry other ropes and falls; 1600 yards of malleable iron rails, from 40 lbs. to 80 lbs. per yard; chairs, crossings, and sleepers; patent tub weighing-machine; patent steam gauges; sundry metal pipes, from 4 to 6 in. diameter; pair of iron bolts for 4½-in. rope; crane chain; smith's vice, bellows, fullers, awages, tongs, and anvil; stone hammers, spades, shovels, old brass, lead, and iron; a large quantity of massive Ashlar freestone, "Newfield" firebricks, and fire-tiles; 8-in. and other planks, and sundry building materials, walls, roofs, doors, windows, &c.

The sale to commence at 11 o'clock; luncheon for purchasers at 12; sale resumed at 1 P.M.—The Chilton Colliery is close to the North Eastern and the West Hartlepool Railways, with both of which it has locomotive connections.

**PAYMENTS.**—All payments to be made in cash.  
 Catalogues to be had, on and after Friday, the 9th of September inst., upon application to JOHN JOHNSON, Esq., mining engineer, Tynemouth; Mr. BENJAMIN DAWSON, South Hetton; or at the Sunderland Sale Offices.

The Sunderland Sale Offices, Lambton-street, Sunderland, Sept. 1, 1864.

**FOREST OF DEAN, GLOUCESTERSHIRE.**  
**PILLOWELL ENGINE COLLIERY.**

**MR. GRAHAM WILL SELL, BY AUCTION, on Thursday,** the 6th day of October, 1864, at the Bell Hotel, in the city of Gloucester, at Twelve o'clock at noon, subject to such conditions as shall be then read, all that very VALUABLE COLLIERY, called the PILLOWELL ENGINE COLLIERY, situated in the FOREST OF DEAN, in the county of GLOUCESTER, including an area of about 160 acres.

The gale contains the COLEFORD HIGH DELF, YORKLEY, and WHITTINGTON VEINS OF COAL.  
 The Severn and Wye tramway is adjacent to the mouth of the pit. The Coleford, Monmouth, Usk, and Pontypool Railway runs within half a mile of the deep side of the gale, and the Lydney basin is within three miles of the property.

Full particulars can be obtained of Mr. BROOKE ROBINSON, solicitor, Dudley; Mr. T. J. A. WILLIAMS, solicitor, Monmouth; Mr. C. G. BROWN, solicitor, Bilston; or from the Auctioneer, Monmouth.

**SHARES FOR SALE IN COOK'S KITCHEN MINE.**

**MR. LITTLE WILL SELL, BY AUCTION, at Tabb's Hotel, Redruth, on Friday, the 7th day of October, at Three o'clock P.M., THIRTY-ONE (31) 2500S. SHARES (trust property) of the VALUABLE TIN AND COPPER MINE, called COOK'S KITCHEN, situated in the parish of ILLOGAN, being the richest mineral district in the county of Cornwall. Cook's Kitchen is bounded on the west by Dolcoath, and on the east by the Tincroft Mines, both of which are amongst the best dividend-paying mines in Cornwall.**

Further particulars may be known on application to the Auctioneer, at Redruth; or to Mr. RICHARD HINGSTON, solicitor, Liskeard.—Dated Liskeard, Sept. 21, 1864.

**NORTHUMBERLAND—WYLLAM.**  
**IMPORTANT COLLIERY, IRONWORKS, AND FIRE-BRICK WORKS, ON THE RIVER TYNE.**

**MR. PYE (under instructions from the proprietor) WILL SELL, BY AUCTION, at the Queen's Head Inn, Newcastle-upon-Tyne, on Tuesday, the 11th day of October, 1864, at One to Two o'clock precisely, in One Lot, a LEASE, for 63 years, of the well-known SEA-SALE AND LAND-SALE COLLIERY, called WYLLAM COLLIERY, the WYLLAM IRONWORKS, the WYLLAM FIRE-BRICK WORKS, and the WYLLAM HOUSES AND APPURTENANCES belonging to these concerns; together with the absolute property in agreements for other royalties and privileges, and in all the VALUABLE PLANT, COLLIERY MATERIALS, and GASWORKS.**

Printed particulars may be had, and other information obtained, from Messrs. T. E. FORSTER and Co., mining engineers, or Mr. R. R. DEX, solicitor, Newcastle-upon-Tyne.

**WHEEL CURTIS MINE.**

**MR. J. O. MAYNE WILL SELL, BY AUCTION, on Wednesday, the 12th day of October next, at the Royal Hotel, Truro, at Three o'clock P.M., to close an account (unless previously redeemed by payment of the amount due thereon), FIFTY SHARES (No. 10000th), subject to such conditions as will then be produced, in the WHEEL CURTIS MINE, situated in the parish of Cran, near Carnarvon, County to the Auctioneer, at Truro; or to Mr. CATEN, solicitor, Caxside, Plymouth.—Dated Plymouth, September 24, 1864.**

**EOGWYSLAN, NEAR PONTYPRIDD, GLAMORGANSHIRE.**  
**IMPORTANT FREEHOLD ESTATES FOR SALE, WITH MINERALS.**

**MESSRS. W. H. WILLIAMS AND CO. WILL SELL, BY AUCTION, at the Cardiff Arms Hotel, in Cardiff, on Wednesday, the 19th day of October, 1864, at Three o'clock in the afternoon precisely, unless disposed of in the meantime by private contract, of which due notice will be given, the undermentioned VERY DESIRABLE FREEHOLD FARMS, with the VALUABLE VEINS OF COAL, PAVING STONE, IRONSTONE, and FIRE-CLAY lying thereunder, viz.:—**

All that FARM HOUSE and OUTBUILDINGS, together with 123 A. 3 a. 3 p. (more or less) of excellent ARABLE, MEADOW, and WOOD LAND, known by the name of the BRYNTAL ESTATE, and adjoining the lands of Lord Eborac, the Baroness Windsor, and others, and now in the occupation of Mr. Griffiths, as yearly tenant.

Also, all that FARM HOUSE and OUTBUILDINGS, called CRAIG ALFA, adjoining the above-mentioned estate, containing 23 A. 2 a. 6 p. (more or less) of good ARABLE, MEADOW, and WOOD LAND, now in the occupation of Mrs. Davies and Mr. Wm. Davis, as yearly tenants.

Attached to the above estates are valuable rights of common.

Also, all that FREE FARM RENT of £2 a year, issuing out of a piece of land, and cottage erected, on about a quarter of an acre of the Craig Alfa estate, and payable by William Thomas.

And, also, all the VEINS OF COAL, PAVING STONE, IRONSTONE, and FIRE-CLAY lying under the above-named estates, and which have been surveyed by well-qualified engineers, and reported to contain upwards of 7,000,000 tons of superior coal, of the valuable Maesmawr or Llantwit, and the other undermentioned veins, one of which has already been developed and worked for some months; and the coal raised therefrom is conveyed by a recently-constructed railway from the colliery to the Glamorganshire Canal, by which 300 tons a day and upwards can be conveniently carried, and an easy access can also be secured to the Taff Vale Railway.

The other veins reported upon are No. 1 Rhonda, 30 yards from the surface; this vein has been recently proved; No. 2 Rhonda, 107 yards; No. 3 Rhonda, 180 yards; Abergynydd, 247 yards; Aberdare Upper Steam, 300 yards; and the Aberdare Lower Steam, 370 yards; exclusive of the lower series of coal, ironstone, and blackband, which are indisputably contained in the South Wales basin.

This property is the key to a large tract of minerals at the back, and from the increased demand for bituminous coal presents more than the ordinary attractions to a capitalist, or parties forming limited liability companies.

There is a large quarry of good paving and building stone on the Craig Alfa estate, which is now worked by a yearly tenant.

The purchaser will be required to take at a valuation, in the usual way, all the plant, rails, and machinery belonging to the colliery.

The tenants will show the farms, and the colliery can be daily seen on the Bryntal estate.

For all further particulars, apply to Mr. CHARLES DAVIES, Clarendon House, Abergynydd, the owner; the Auctioneers, Exchange-buildings, Bristol, or at their offices, 51, St. Mary-street, Cardiff; or to Mr. BARKE, solicitor, Albion Chambers, Bristol.

**VALUABLE COLLIERY FOR SALE IN SOUTH LANCASHIRE, AT GERARD'S BRIDGE, NEAR ST. HELEN'S.**

**MESSRS. WILLIAM PEARSON AND SON WILL SELL, BY AUCTION** (by order of the proprietors upon a dissolution of partnership, unless previously disposed of by private treaty, of which due notice will be given), on Wednesday, the 13th October, 1864, at Three o'clock in the afternoon, at the Raven Hall, St. Helen's, subject to conditions to be then and there produced, all that EXTENSIVE WORKING COLLIERY, known as the GERARD'S BRIDGE COLLIERY, long worked by the late well-known firm of Speakman and Caldwell, and now by Messrs. Caldwell and McCormick, jun., situate within half a mile of the populous and increasing town of St. Helen's, and surrounded by glass works, alkali manufactories, iron foundries, and other extensive works, ensuring a constant demand at the pits for a large proportion of the produce of the colliery at favourable prices, and within fifteen miles distance of Liverpool, where immense quantities of coal are shipped.

The St. Helen's Railway and the Sankey Canal both pass through the property, and there are colliery sidings into the main line of the railway, two pier heads at the canal, and about 400 yards of water frontage for wharfs, thus affording the simplest convenience for land and water transit direct from the pits to near and distant ports and markets.

The principal mines of coal are those known as the Little Delf, Busby Park, Main Delf, Higher Delf, San Sebastian, and Pigeon House Mines, which are being worked from three pits, and some of these are the best mines of the district.

It is computed that the aggregate unworked coals will be equal to about 2,000,000 tons. The colliery is held under mineral leases and tenancies at moderate rents, and, in other respects, upon favourable terms.

The purchaser will have the benefit of the overpaid royalty in one of the mines, amounting to about £3000.

The entire colliery will be sold as it is now working, including the substantially well fitted up winding, pumping, capstan, and other engines, engine houses, carpenter's, smith's, and lamp shops, saw mill, store houses, weighing machines, head gear, pump stocks and pumping gear, canal piers, surface and underground railways, rolling stock, and all other the colliery appliances, including the railway and other wagons, horse carts, canal boats, and stores, and also comprising the farm stock and all other effects now belonging to and in use upon the colliery. Possession may be had immediately.

For printed particulars, apply to Messrs. MARSH AND BARRATT, solicitors, Warrington; Mr. E. P. CHAMBERS, solicitor, Prescott; to the Auctioneers, Wigan; to Mr. THOMSON, manager at the colliery; or to Messrs. MAYHEW AND SON, solicitors, Wigan.

**PARAFFINE WORKS FOR SALE.**  
 In consequence of the expiration of the partnership of the firms.

**THERE WILL BE SOLD, BY PUBLIC ROUP,** within Messrs. Cay and Black's Sale Rooms, No. 65A, George-street, Edinburgh, on Wednesday, the 26th day of October next, at Two o'clock afternoon (if not previously disposed of by private bargain), the original and well-known PARAFFINE AND PARAFFINE OIL WORKS at BATHGATE, belonging to and carried on by Messrs. Young, Meldrum, and Binney, under the style or firm of E. W. Binney and Co., and Meldrum and Co. respectively, comprising LAND, BUILDINGS, STEAM ENGINES, MACHINERY, TANKS, and whole FIXED and WORKING PLANT, with the exception of coals, chemicals, casks, and stock, both manufactured and in process of manufacture, together with all rights belonging to the partnerships, all as occupied and used by the said firms.

The works are situated in the vicinity of Bathgate, upon the railway from Bathgate to Morningside, by which they are intersected, and there is a communication by railway from the works to the Edinburgh and Glasgow, the Caledonian, and the Monkland Railways.

The lands extend to about 25 acres, and the feu duty unreddeed amounts to £161 2s. 8d. or thereby.

The works may be seen on Mondays, between the hours of Twelve and Three, by tickets only, which may be had at Messrs. HORN and ROSE's chambers, 39, North Castle-street, Edinburgh, by whom offers for purchase by private bargain will be received, on or before the 15th October next.

**TO ROPE MAKERS, &c.—TO BE SOLD, the ENTIRE PLANT** (or any part) of a ROPE MAKER (machinery patent), premises being required for other purposes, and the business declined.—Apply to "W. W." Post-office, Plymouth.

**TO BE SOLD, a SUBSTANTIAL AND CONVENIENT COLLIERY,** situate in the vicinity of extensive works, which is at present capable of producing 150 tons per day. The coal is admirably adapted for smelting, and is now extensively used for that purpose.—Apply to Mr. E. DANIEL, mineral surveyor, Swansea.

**FOR SALE, THE ABERDOVEY SILVER-LEAD MINE.**  
 This mine is situated about three miles from the port of Aberdovey, in Merionethshire, North Wales, and extends over 296 acres. There are numerous lead lodes running through the sett. In the present workings a shaft has been sunk 42 fms. from which four levels have been driven, and with a moderate outlay lead ore has been obtained to the amount of more than £15,000. A large stream of water runs through the sett, sufficient to work the mine to a considerable depth. There are two powerful water-wheels for pumping, &c., and every necessary appliances for raising, dressing, &c., 300 or 250 tons of ore per month. The present proprietors not being in a position to find the funds to work the mine as energetically as should be done, now offer the same to the public, feeling assured that in a few months, with a liberal expenditure, the mine would become a good paying property. Reports of the mine, and any information, can be had of Mr. J. B. LAWS, 50, Threadneedle-street, London, to whom application is to be made as to price, &c.

**FOR SALE, on reasonable terms, a FREE MINER'S RIGHT** in an EXTENSIVE CALCAREOUS HEMATITE IRON ORE GALE, in the FOREST OF DEAN. The ore can be reached at a moderate depth from the surface, and the gale joins the route of the Worcester Dean Forest and Monmouth Railway.—For further particulars, and to treat, apply to Mr. T. FORSTER BROWN, mining engineer, Machen, Newport, Monmouthshire.

**FOR SALE, the RIGHT to the PATENT of a VALUABLE IMPROVEMENT IN VALVES AND BUCKETS for PUMPS, and in VALVES or COCKS for OTHER USES.**—For particulars, apply to Mr. W. T. RAWLSE, patent and mining agent, 39, Hudge-street, Bristol.

**SPAIN—EXTENSIVE IRONWORKS, ESTABLISHED ON THE ENGLISH SYSTEM, AND MINES OF COAL, IRON, AND KAOLIN FOR SALE.**—The Limited Liability Company, Patencia Leonesa, having decided, at a general meeting of shareholders, on DISPOSING, BY AUCTION, of all their PROPERTIES situate in the valleys of SABERO, COLLE, and YENEROS, in the province of LEON, in SPAIN, consisting of—

1.—SIXTEEN COAL MINES, with 68 portions of land and dependencies, comprising a superficies of 12,240,000 square varas (855 hectares 20 ares 88 centiares, or about 2140 acres), SIX MINES of IRON, of hydrate, carbonated, and calcareous qualities, with 16 portions of land and other dependencies, comprising 60,000 square varas, or 419 ares 22 centiares, the whole in full working, with iron tramways from the bottoms of the mines to the works, with a sufficient number of wagons and necessary tools and implements for working the same, and THREE MINES of CLAYEY LAND or KAOLIN.

2.—An EXTENSIVE IRONWORK, established on the English system, with all the MACHINERY, APPARATUS, CYLINDERS, BLASTING FURNACES, MELTING HOUSES, TOOLS and IMPLEMENTS, together with the warehouses, workshops, and offices for the company, and workmen's dwellings, a quantity of ore and iron in ingots, the whole estimated at the sum of 10,500,000 reales (2,735,157 £).

Further particulars, with plans of the above works and conditions of sale, may be obtained at the offices of the company, No. 4, Calle de Lepanto, No. 4, Cuarto 2, Madrid, every day, Sundays and holidays excepted, from Ten to Two o'clock, from the 1st of August to the 31st of October next, the day fixed for the sale, which will take place at Three o'clock precisely, in the Salle No. 7 of the Residence, No. 10, Calle de Capellanes; and at the same hour the sealed proposals which may have been deposited on the same day from One to Three o'clock, and none of which will be admitted unless containing a certificate of deposit at the Caisse des Depots and Consignations of 300,000 reales (75,947 £) in cash, or in shares of the public debt, as a guarantee of the due execution of the purchase. Be it thus publicly known to all whom it may concern, by the undersigned director.

Madrid, August 1, 1864. Signed, MIGUEL DE YOLESIAS.

**MERIONETHSHIRE, NORTH WALES.**

**TO BE DISPOSED OF, a SLATE QUARRY PROPERTY,** vein proved, and position commanding all advantages. Also, a VALUABLE GRANT, possessing a RICH SILVER-LEAD MINE, with other lodes, very favourable.—To treat for the same, apply to Mr. H



**TWARNHAILE MINE, ST. AGNES, CORNWALL.**—The Committee are PREPARED TO RECEIVE TENDERS for the LEASE, MACHINERY, and MATERIALS of the above mine, which is in full working order at the present time, and have free access for inspection any day prior to the day of tender. Agents may be addressed to the secretary, J. H. MURCHISON, Esq., 8, Austin Friars, London, before Twelve o'clock on Thursday, October 6th. The committee do not bind themselves to accept the lowest or any tender. Dated September 22, 1864.

**GRANITE CURB AND SETS, AND YORK PAVEMENT.**—The West Ham Local Board of Health are PREPARED TO RECEIVE TENDERS from parties who may be willing to DELIVER any of these MATERIALS, either in the Victoria (London) Docks, or on such wharves as may be named on the River Lea. Forms of tender, with any particulars and information required, may be obtained by application to Mr. MARSHALL, the surveyor to the Board, at his office, in Rokeby House, Strand, E.; and the tenders are to be sent, addressed to me, and endorsed "Tender for Pavement," &c., on or before Monday, the 10th October next. By order of the Board, CHAS. WILSON, Clerk to the Board. Rokeby House, Strand, September 18, 1864.

**THE ISLE OF MAN SLATE QUARRY AND GOLD MINING COMPANY (LIMITED).**—Incorporated under the Companies Act, 1862, which limits the liability of each shareholder to the amount of his shares. Capital £160,000, in 160,000 shares of £1 each. Deposit on application 2s. 6d. per share, and 2s. 6d. on allotment. No call to exceed 2s. 6d. per share, and an interval of not less than six months between each call. A less number than 100 shares will not be allotted. DIRECTORS: Capt. R. J. MARSH, R.N., Cottage Moss, Ramsey—CHAIRMAN. Capt. EWEN CAMERON, Glenfaba House, Peel. SAMUEL BROADBENT, Esq., Eltals, Oranmore, near Douglas. JOSEPH HIGGINS, Esq., Fowell-terrace, Peel. LESLIE LOCKHART, Esq., H.M. Customs, Peel. Capt. G. RUSSELL, 103, Albany-street, Regent's-park, London. JOHN MORGAN, Esq., Wainham Lodge, Shrewsbury. (With power to add to their number.) MANAGING DIRECTOR—Henry Johnson, Esq., Norfolk House, St. John's, Isle of Man. BANKERS—The North and South Wales Bank, Liverpool. The National Provincial Bank of England, Shrewsbury. SOLICITOR AND SECRETARY—C. Hicks, Esq., Shrewsbury. REGISTERED OFFICE, MARKET CHAMBERS, SHREWSBURY.

**ABRIDGED PROSPECTUS.**—This company has been established for the purpose of acquiring and working a most extensive and valuable mineral property, called the Glenrathen and Dalby Slate and Gold Quarries, situate in the parish of Patrick, in the southern district of the Isle of Man. The property on which the quarries are opened consists of 6906 acres, nearly the whole of which is proved to be composed of slate rock, equal in quality to any produced from the best quarries in Wales. This immense property, which it is believed is the largest slate sett in the kingdom, and likely to become one of the most valuable, is held under a lease from the Crown for the term of 21 years, at a reduced royalty of 1-16th, of which term 19½ years are unexpired.

A large sum of money has been spent in opening out and proving the value of their property, not only at the principal quarries at Glenrathen, but also on about 20 different parts of the sett, and "these trials have proved" (as stated in the report of Capt. John Francis, of Penryn, North Wales, under whose direction and advice these trials were made) "that almost the whole grant of 7000 acres is composed of slate-rock, and capable of having from eight to ten different quarries opened upon it." The machinery and plant are very valuable, consisting of water-wheels, sawing mills and cutting machines, tramways, dressing sheds, offices, smiths and carpenters' shops, machine houses, and other buildings; and there are several cottages erected, with a dining room and other conveniences for the accommodation of the quarrymen. The sett has been inspected by Capt. John Francis, as before stated, and by Mr. W. R. Williams, of Dolgelly, mining engineer, Capt. Thomas and Robert Williams, of Coodpoth, Denbighshire, and several other practical men, all of whom speak thereof in the highest terms.

The colour of the slate is a fine dark blue, the grain close and compact, the texture good, the lamination fine and silky, and the cleavage very good and straight. There is also a very promising vein of green slate, which Capt. Francis recommends should be proved by driving a level into the rock, and if it turn out as well as anticipated will prove a very good green quartz. In addition to the slate there are several veins or reefs of auriferous quartz traversing a portion of the sett, near to the Foxdale district, which it is believed will prove a valuable acquisition to the company. Portions of the quartz have been assayed by Messrs. Johnson and Sons, of London, Mr. Samuelson, of Liverpool, and other public assayers, with results varying from 1 oz. 2 dwts. 20 grs. to 5 dwts. of fine gold to the ton of quartz, and from the report of Mr. W. R. Williams there is every reason to expect most profitable results.

The quarries are about three miles from the shipping port of Peel, but when the projected railway from Douglas to Peel is completed they will be within a mile and a half of the intended station at Kirkpatrick, to connect them with which a loop-line will doubtless soon be formed. Only £30,000 of the capital remains to be allotted. Specimens of the slate may be seen, and prospectuses and forms of application for shares obtained at the offices of Messrs. LITTLEDALE, RIDLEY, and BARDWELL, solicitors, Brown's-buildings, Liverpool; or at the registered office, where the original reports and map of the quarries may be inspected.

**FORM OF APPLICATION FOR SHARES.** To the Directors of the Isle of Man Slate Quarry and Gold Mining Company (Limited). GENTLEMEN,—Having paid to your bankers the sum of £, I hereby request that you will allot me shares in the Isle of Man Slate Quarry and Gold Mining Company (Limited), and I hereby agree to accept such shares, or any smaller number that may be allotted to me; to pay the deposit, allotment, and calls thereon, and to become a member of the company; and I authorise you to place my name on the register of members for the shares which may be allotted to me. I am, Gentlemen, Name in full..... Address in full..... Profession or business (if any)..... Place of business (if any)..... Date.....

**THE DEVON GREAT MARIA CONSOLIDATED MINING COMPANY (LIMITED).**—Capital £50,000, divided into 2000 shares of £25 each. Deposit, £2 10s. per share upon application, and £2 10s. per share upon allotment. DIRECTORS: CHARLES JOSEPH CARTTAR, Esq., (Coroner for Kent), Catherine House, Blackheath, S.E. JOHN JOHNSTONE, Esq., J.P., Friarstown House, Leitrim, and 31, Belgrave-road, JOSEPH TILSTON, Esq., Chesham-place, Baywater, W. And two members of the board to be elected from the body of shareholders at the first general meeting. BANKERS—The Metropolitan and Provincial Bank (Limited), 75, Cornhill. SOLICITOR—Frederick W. Snell, 1, George-street, Mansion-house, E.C. AUDITOR—Sydney G. Smith, Esq., public accountant, 19, Coleman-street, E.C. And one member to be elected from and by the body of shareholders. ENGINEER—Mr. William H. Gray, St. Austell, Cornwall. LOCAL MANAGER AND PURSER—Capt. Richards. SECRETARY—Mr. Thomas Spargo. OFFICES: Nos. 224 and 225, GRESHAM HOUSE, OLD BROAD STREET, LONDON.

**PROSPECTUS.**—This company has been formed for the purpose of working an extensive mineral property, situated immediately to the west of the celebrated Devon Great Consols, which, upon an outlay of £4024, has paid in dividends £245,152, the present value of that property being £588,800. The geological position of the two mines is identical, and the same lodes pass through the entire length of the sett; it is, therefore, reasonably expected that equally favourable results will be realised. The total outlay required to bring the mine into a profitable state of working has been carefully investigated, and cannot exceed £10,000. The directors have the utmost confidence in recommending this investment to their friends and the public. It has elements of success equal, perhaps superior, to any mining enterprise, undertaken since the issue of shares in the Devon Great Consols adjoining. The directors have already received applications for a considerable number of shares, and the allotment letters will be issued in order of date of application. Applications for shares to be accompanied by a deposit of £2 10s. per share, and £2 10s. per share will have to be paid on allotment. The directors do not bind themselves to call up more than £10 per share, and shareholders will have the option of pre-payment only to this amount, upon which interest at 6 per cent. will be paid. The operations at the mine are being carried on with all possible dispatch, under the able superintendence of Capt. Richards, whose report is annexed. The company will be incorporated under the Companies Act, which limits the liability of shareholders to the amount of their respective subscriptions. Applications for the remaining shares may be made in the usual form, addressed to the secretary, directors, or bankers. The report from Captain Joseph Richards, mineral agent for the Right Hon. Earl Fortescue, justifies the expectations of the directors. The captain's practical knowledge of the underground workings of the Devon Great Consols, and long acquaintance with the run of lodes and their connection with the property, constitute him an indispensible authority.

I beg to hand you my report of this mine. It is situated directly east of New Wheal Martha, and west of the Devon Great Consols, and is in a direct line with the main lode of these mines, so that it may be considered as occupying a first-rate position. The great lode of New Wheal Martha and the main lode of Devon Great Consols run directly through the sett, so do also other lodes of very great promise. Two shafts are sunk, and levels driven. I feel assured that the prospects are such as to guarantee large returns of copper ore, and am, therefore, justified in recommending the Great Devon Maria as a very superior property. In addition to the very fine appearance of the lodes themselves, there are cross-courses and intersections, on which are often found the most splendid and valuable masses of ore. Any investors with whom my counsel has weight should promptly secure an interest, for, in my belief, the prospects of this mine are not exceeded by those of any other mine in the two counties.

JOSEPH RICHARDS, St. John's, Lamerion. See Wheal Martha, Aug. 28, 1864.—Agreeably with your request, I beg to hand you my report of this mine. Its situation is between the New Wheal Martha and the Devon Great Consols. The masterly lode of Great Wheal Martha, which are making such large returns, pass through the entire length of this sett, in a direct line with the run of the Devon Great Consols lodes. The strata in which these promising lodes are embedded are most congenial for the formation of metal, and are traversed by the cross-courses that have exercised so beneficial an influence as to their metal-bearing quality in other mines in the neighbourhood. There is a large amount of labour done towards accomplishing a trial of this mine, and I have no doubt but that it will prove a most profitable undertaking to those who may become interested in it. HENRY RICKARD.

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940	Fowey Consols (copper), Tywardreath	4 0 0	—	—	—	—
6000	Great South Tolgus, Redruth	0 14 6	2 1/2	2 2 1/2	—	—
10240	Gunn's Lake (Clitters Adit)	0 2 0	—	—	—	—
160	Levant (copper, tin), St. Aust.	2 0 0	—	—	—	—
640	Mount Pleasant (lead), Mold	0 8 0	—	—	—	—
5000	Oradell (lead), Flintshire	0 8 0	—	—	—	—
6000	South Exmouth (lead), Christow	1 14 0	—	—	—	—
780	Sparrow Moor (tin, copper), St. Aust.	32 17 0	—	—	—	—
573	Trevelyan Consols (tin), St. Ives	14 0 0	6 7	—	—	—
1000	Trumpet Consols (tin), near Helston	11 10 0	—	—	—	—
12000	Two Apostles Amal. (id.), Wrexham	1 0 0	—	—	—	—
1024	Wendron Consols (tin), Wendron	19 13 0	—	—	—	—
60	West Burton Hill (lead), York	60 0 0	—	—	—	—
1024	West Caradon (cop.), Liskeard [S.E.]	7 0 0	10	8 1/2	9	—
1024	Wheal Friendship (copper), Devon	20 0 0	—	—	—	—
1024	Wheal Grylls (tin), Penzance	3 14 0	—	—	—	—
896	Wheal Margaret (tin), Uny Lelant	10 17 6	8 1/2	7 1/2	8 1/2	—
6400	West Fowey Consols (tin and copper)	7 10 0	—	—	—	—

## FOREIGN DIVIDEND MINES.

20000	Australian (cop.), S. Australia [S.E.]	7 7 6	1 1/2	—	—	—
2464	Burra Burra (cop.), South Australia	5 0 0	—	—	—	—
6000	Central American (silver) [L.]	5 0 0	—	—	—	—
15000	Cape Copper Mining [L.] [S.E.]	7 0 0	11	10 11	—	—
12000	Cobre Copper Co. (cop.), Cuba [S.E.]	40 0 0	31	29 31	—	—
100000	Don Pedro No. Del Rey [L.] [S.E.]	10 0 0	1/4	1/4	—	—
70000	English and Australian [S.E.]	5 0 0	—	—	—	—
18000	East Indian Coal, Calcutta [L.]	2 0 0	—	—	—	—
20000	Fortuna (lead), Spain [L.]	2 0 0	4	3 1/2	3 3/4	—
25000	Gen. Mining Assoc., Nova Scotia [S.E.]	30 0 0	23	21 23	—	—
60000	Kapunda Mining Co., Australia [S.E.]	1 0 0	1 1/2	1 1/2	—	—
15000	Linares (id.), Pozo Ancho, Spain [S.E.]	3 0 0	6	5 6	—	—
10000	Lusitania (of Portugal) [S.E.]	2 0 0	—	—	—	—
10000	Pontgibaud (sil.-lead), France [S.E.]	320 0 0	—	—	—	—
97500	Port Phillip (gold), Clunes [S.E.]	1 0 0	1 1/2	—	—	—
11000	St. John del Rey [L.] [S.E.]	38 0 0	38	36 38	—	—
43174	Monte Aurore (sil.), Brazil [S.E.]	28 0 0	—	—	—	—
10000	Vancouver (coal) [L.] [S.E.]	5 0 0	—	—	—	—
20000	Victoria (London) Mining Co. [L.]	1 0 0	—	—	—	—
20000	West Canada Mining Company [L.]	1 0 0	—	—	—	—
45000	Yudamutana (cop.), S. A. [L.] [S.E.]	3 0 0	2 1/2	1 3/4	2 1/2	—

## FOREIGN MINES WITH DIVIDENDS IN ABEYANCE.

10000	Altan and Quenangan Unit. (cop.) [L.] [S.E.]	4 10 0	—	—	—	—
10000	Coplo Mining Company, Chile [S.E.]	16 0 0	—	—	—	—
10000	Gt. Barrier Land, Min. & Co. [L.] [S.E.]	4 10 0	—	—	—	—
103815	Mariguata and New Granada [S.E.]	1 0 0	1/2	1/2	—	—

## NON-DIVIDEND FOREIGN MINES.

50000	Alamillos (lead), Spain [L.] [S.E.]	1 0 0	1 1/2	1 1/2	—	—
300000	Anglo-Italian (gold), Spain [S.E.]	0 17 6	—	—	—	—
20000	Rein Tin Streaming Company [L.]	1 0 0	—	—	—	—
25000	Capula (silver), Mexico [L.] [S.E.]	1 0 0	—	—	—	—
17000	Central Italian (copper) 7000 £ paid	0 0 0	—	—	—	—
10000	Copialo Smelting [L.] [S.E.]	10 0 0	—	—	—	—
75000	Don Mountain (copper), New Zealand [L.] [S.E.]	1 0 0	—	—	—	—
50000	East del Rey (gold), Brazil [L.] [S.E.]	1 0 0	—	—	—	—
30000	East Kongberg Native Silver Mining Co. of Norway [L.]	1 12 0	—	—	—	—
20000	English and Canadian Mining Company [L.]	2 0 0	—	—	—	—
40000	Fortune (copper), West Australia [L.]	0 10 0	—	—	—	—
50000	Frontino and Bolivia (gold), New Granada [L.] [S.E.]	1 10 0	—	—	—	—
80000	Great Northern (copper), South Australia [L.] [S.E.]	3 0 0	—	—	—	—
24000	Hindustan (copper), Bengal [L.] [S.E.]	25 0 0	—	—	—	—
4000	Hope Silver-Lead and Copper Mining Co. [L.] [S.E.]	25 0 0	—	—	—	—
10000	Karibit Colliery Company [L.]	1 0 0	—	—	—	—
5000	Lagunera (copper), Portugal [L.]	1 0 0	—	—	—	—
100000	Monte Aurore (gold), Brazil [L.] [S.E.]	2 0 0	2 1/2	1 3/4	—	—
10000	New Grand Duchy of Baden (silver-lead), near Freiburg	1 0 0	—	—	—	—
60000	Nova Scotia (lead and gold) [L.] [S.E.]	1 0 0	—	—	—	—
10000	Ota (copper) [L.] [S.E.]	0 10 0	—	—	—	—
15000	Pachuca Silver Mining Company, Mexico [L.]	1 0 0	1 1/2	1 1/2	—	—
60000	Panuelillo (copper) [L.] [S.E.]	1 0 0	—	—	—	—
6000	Real River Lead and Mineral [Limited]	200 0 0	—	—	—	—
20000	Quebrada (copper), Venezuela [L.] [S.E.]	4 0 0	—	—	—	—
20000	Rosa Grande (gold), Brazil [L.] [S.E.]	0 5 0	—	—	—	—
60000	San Roque (lead), Spain	5 0 0	—	—	—	—
60000	Santa Barbara (gold), Brazil [L.] [S.E.]	0 15 0	—	—	—	—
130000	Santa Barbara Mining Company [L.] [S.E.]	0 17 6	—	—	—	—
15000	South European Mining Company, Spain [L.] [S.E.]	3 0 0	—	—	—	—
12000	Tepitit Colliery Co., Bohemia [L.] [S.E.]	3 0 0	—	—	—	—
5000	Vale de Almeida Mining Company, Portugal [L.]	1 0 0	—	—	—	—
50000	Vallananza (gold), Italy [L.] [S.E.]	7 6 0	1 1/2	1 1/2	—	—
45000	Victor Emanuel (copper), Italy [L.]	1 0 0	—	—	—	—
1000	Western Africa Malachite (copper) [L.]	110 0 0	—	—	—	—
12000	Wheal Ellen (copper), South Australia [L.]	5 0 0	—	—	—	—
50000	Worthing (copper), South Australia [L.] [S.E.]	1 0 0	1	1	—	—

## PROGRESSIVE MINES.

Shares.	Mines.	Paid.	Last Pr.	Bus. done.	Last Call.
1000	Alt-y-Crib (lead) [L.] [S.E.]	4 12 6	—	—	July, 1864
6000	Bagtor (tin) [L.]	2 0 0	—	—	July, 1864
4000	Bedford Consols (cop.), Tavistock	2 9 0	—	—	July, 1864
3200	Bodol Aur (lead), Holywell	0 12 0	1 1/4	—	June, 1864
2000	Berehaven (copper), Ireland	1 0 0	—	—	July, 1864
500	Billins	30 0 0	19 1/2	—	Fully paid.
6000	Boscawen (tin), Kenwyn	2 10 0	—	—	Feb. 1864
2280	Boscawen (tin), St. Austell	7 10 0	—	—	Sept. 1864
5000	Bottle Hill (tin), Plymouth	1 8 0	—	—	May, 1864
3000	Bromlow (id.), Ministry Salop	1 0 0	—	—	July, 1864
200	Brynmor Hall (lead), Flint	20 0 0	—	—	Aug. 1863
500	Bryn Gwilog (lead), Flint	9 0 0	1 1/4	1 1/4	June, 1864
1832	Bryntall (lead), Llanidloes	8 7 6	3 1/2	—	June, 1864
4280	Buller & Basset (cop.) Redruth	4 11 6	—	—	Feb. 1864
12000	Calstock Consols (cop.), Calst.	17 1 6	—	—	—
915	Calvadnack (tin), Wendron	25 0 0	—	—	Aug. 1864
4000	Camborne Consols (copper), Camb.	9 10 0	—	—	Feb. 1864
4600	Camborne Vean & W. Francis	9 18 4	—	—	June, 1864
75000	Cambrian Consolid. (id.) [L.] [S.E.]	1 0 0	—	—	Aug. 1863
8000	Cape Cornwall (cop.) [L.] [S.E.]	1 0 0	—	—	Aug. 1864
12000	Caradon & Phoenix Cons. [L.] [S.E.]	10 0 0	—	—	—
914	Caradon Cons. (cop.), St. Cleer	28 16 6	—	—	June, 1864
6000	Caradon Unit. (cop.), St. Neots	1 0 0	—	—	June, 1863
2580	Carmanthen United (lead)	5 0 0	—	—	Fully paid.
7000	Carnellon (tin and cop.) Redruth	2 10 0	—	—	Jan. 1864
3000	Carnellon (tin and cop.) Camb.	9 0 0	35s.	30s. 92s.	July, 1864
3000	Carr Vivian (tin, cop., lead)	2 1 6	—	—	Nov. 1861
2048	Carnynorth (tin), St. Just	4 10 0	—	—	June, 1864
30000	Carraroff (3200 £2 1/2 pd., 16800 £1 pd.)	1 0 0	—	—	—
10000	Castleward, Ireland [L.]	1 0 0	—	—	Fully paid.
3500	Cefn Cileben (id.), Flint [L.] [S.E.]	2 8 6	—	—	Aug. 1864
500	Cefn Cwm Bryweno (lead)	4 0 0	—	—	Sept. 1864
2000	Central Grylls (tin) [L.] [S.E.]	2 15 0	—	—	Feb. 1864
2500	Central Main (lead), Cardiff	2 10 0	—	—	Aug. 1864
5000	Charlotte (tin), Perranruthoe	5 2 6	—	—	Sept. 1864
3000	Chiverton Moor (lead)	3 0 0	—	—	Oct. 1863
3000	Chiverton Valley (lead)	3 0 0	—	—	Feb. 1864
4000	Clara Unit., Pontefryd [L.] [S.E.]	2 2 0	—	—	Jan. 1864
1024	Cleer's Hill (tin), St. Stephen's	0 2 0	—	—	—
787	Clijah & Wentworth (tin, cop.)	83 0 0	—	—	Aug. 1864
5000	Cloance Wood [L.] [S.E.]	2 0 0	—	—	Aug. 1864
10000	Coalrath & Bond [L.] [S.E.] [5500 £1 pd., 1000 £12s. pd.]	1 0 0	—	—	Jan. 1864
50000	Conmorre (tin), Cornwall	1 0 0	—	—	Fully paid.
6000	Cornish Clay and Tin [L.]	1 0 0	—	—	—
861	Crane (copper), Camborne	24 0 0	—	—	June, 1864
30000	Crenvader Wh. Abraham [L.]	2 10 0	—	—	—
12000	Crelake (cop.), Tavistock	2 13 0	—	—	April, 1864
2000	Crowlwm (lead), Llanidloes	11 10 0	—	—	Dec. 1863
8000	Cuddra (cop., tin), St. Austell	4 1 0	—	—	Feb. 1864
5000	Dale (lead), North Stafford	—	—	—	Fully paid.
1000	Darren (lead), Llanidloes	6 8 0	12	—	Aug. 1864
1000	Deep Level Mining (id.) [L.] [S.E.]	3 5 0	—	—	Feb. 1862
672	Ding Dong (tin), Gwylva	44 10 0	—	—	Dec. 1863
20000	Dolfrwygyn (gold) [L.] [S.E.]	0 15 0	—	—	June, 1864
1000	Durio (tin), Lelant	8 2 0	—	—	Oct. 1862
1000	Eaglebrook (lead) [L.] [S.E.]	17 2 0	—	—	April, 1864
5000	East Bassett and Grylls (tin)	2 7 6	—	—	Aug. 1864
5000	E. Bottle Hill (tin), Plymouth	0 15 0	—	—	Aug. 1864
5000	East Cambrian (gold) [L.] [S.E.]	2 10 0	—	—	Sept. 1864
5000	East Cambrian (gold) Redruth	2 15 0	7 1/2	7 1/2	Feb. 1863
2000	East Chiverton (lead)	2 10 6	—	—	Aug. 1864
50000	E. Clagau (gold), Merio [L.] [S.E.]	0 6 0	—	—	Mar. 1864
4000	East Devon Gt. Consols (cop.)	1 14 0	—	—	May, 1864
2048	E. Falmouth (s.-id.), Kenwyn	5 0 6	—	—	April, 1864
6000	E. Grenville (cop.), Camborne	2 7 0	7 1/2	7 1/2	Aug. 1864
5000	E. Gt. Work (tin), Breage [L.] [S.E.]	2 10 0	—	—	May 1864
5000	E. Gunnis Lake & S. Merio (cop.)	—	—	—	—
6145	E. Huel Eileen (cop.), St. Agnes	7 0 0	—	—	Mar. 1864
5000	East Lassy (lead) [L.] [S.E.]	2 0 0	2 1/2	2 1/2	July, 1861
1024	E. Margaret (tin), Uny Lelant	20 5 0	—	—	Aug. 1864
8000	E. Polberth (tin), East Lelant	4000 £2 1/2 pd., 4000 £2 1/2 pd.]	—	—	Nov. 1863
3986	E. Providence (tin), Uny Lel.	4 9 8	—	—	Sept. 1864
5610	East Seton (cop.), Camborne	0 10 0	—	—	Dec. 1863
256	East Tolgus (copper), Redruth	88 0 0	—	—	June, 1864
1024	E. Treaskerby (cop.) Redruth	0 5 0	6 1/2	6 1/2	Aug. 1864
2000	East Wheal Abraham	0 5 0	—	—	—
1190	E. Wheal Eileen (cop.), St. Agnes	11 17 0	—	—	Sept. 1863
1380	E. Wheal Eileen (cop.), St. Agnes	0 7 6	—	—	April, 1864
2000	E. W. Fortune (tin) Stithney	1 0 0	—	—	April, 1863
2048	East Wheal Grylls (tin) Sichep	2 2 6	—	—	July, 1864
6000	East Wheal Metal (tin and cop.)	—	—	—	—
5000	E. W. Russell, Tavis. [S.E.]	9 5 6	5	5 1/2	Sept. 1864
6000	East Wheal Vor (tin and cop.)	5 0 0	—	—	—
1000	Erwiltin (lead), [L.] [S.E.]	3 10 0	—	—	Sept. 1864
1144	Escher Unit. (cop.), Cardingford	0 3 10	—	—	—
6000	Fortescue Cons. (all.), Endellion	0 12 6	—	—	—
6000	Furze Hill Wood Cons., Buckl.	1 5 6	—	—	April, 1864
1026	Garden (tin), Morvah	4 17 9	—	—	May, 1863
4096	Garlinda Unit., Wendron	4 1 6	—	—	Mar. 1864
1000	Garrow (lead), Flint	5 14 6	—	—	Dec. 1863
5000	Gawling (copper), Tavistock	2 0 0	—	—	June, 1864
500	Gen. Min. Co. for Ire. (cop.)	2 9 6	4 1/2	—	—
30000	Glasgow & Cardiff (tin), [L.] [S.E.]	1 0 0	—	—	Fully paid.
32	Godolphin (cop., tin), Wrexham	4 0 0	—	—	Aug. 1864
5700	Goginan (silver-lead)	12 10 0	—	—	April, 1864
2000	Golith Hill (lead), Flintshire	1 0 0	—	—	—
6144	Gonamena (copper), St. Cleer	4 9 0	—	—	Sept. 1864
2000	Gonson (copper), St. Neot	1 12 6	—	—	Aug. 1864
486	Gramp. & St. Aub. (cop.) [S.E.]	60 0 0	10	8 9	Sept. 1864
5000	Great Brigant (cop.), Redruth	2 10 0	—	—	Sept. 1864
4096	Great Carn (cop.), St. Agnes	2 14 0	—	—	Sept. 1864
10000	Great Devon and Bedford [L.]	1 15 0	—	—	Mar. 1864
3000	Gt. East Lovell (tin), Heleston	1 0 0	—	—	—
5000	Great North Downs (copper)	4 0 0	—	—	Sept. 1864
6000	Gt. Retallack (all.-id., blende)	2 6 6	—	—	April, 1864
6000	Great S. Chiverton (all.-lead)	0 10 0	3 1/2	3 1/2	April, 1864
62000	Great Tregune Consols (cop.)	0 5 0	—	—	—
5000	Great West Chiverton (lead)	2 10 0	—	—	June, 1864
3730	Great Wheal Eileen (cop.)	6 16 0	—	—	May, 1863
10000	Gt. Wh. Metal, Breage [L.] [S.E.]	1 0 0	—	—	—
2500	Grit and Stapely (lead), [L.]	10 0 0	—	—	July, 1864
2048	Grylls Consols (tin)	1 5 0	—	—	—
4000	Grylls Wheel Florence (tin)	—	3	—	Jan. 1864
6000	Gt. Wh. Busy (cop., tin), Ken.	13 14 6	2 1/2	2 1/2	April, 1863
3072	Gt. Wh. Grylls (tin, copper)	1 0 0	—	—	No call.
4000	Gurlym (cop., tin), St. Erh.	1 0 0	—	—	July, 1864
6000	Gurlym (cop., tin), St. Erh.	1 7 3	—	—	Feb. 1864
6000	Hallenbaage (copper)	1 0 0	3 1/2	3 1/2	July, 1864
4000	Harwood (id.), Durham [L.] [S.E.]	0 6 6	—	—	Sept. 1864
5000	Havan (id.), Cardigan [L.] [S.E.]	4 0 0	—	—	Feb. 1864
5000	Hazel Grove (all.-id.) [L.] [S.E.]	0 10 0	—	—	No call.
7219	Hawkmoor (tin, cop.) Calstock	3 6 0	—	—	Feb. 1864
5000	Hendre (lead), Flint [L.] [S.E.]	2 10 6	4 1/2	4 1/2	Sept. 1863
5000	Hendon Down (cop.) [S.E.]	0 12 6	—	—	Nov. 1863
6000	Hilgott (tin), Gwylva	0 12 6	—	—	—
5000	Kelly Bray (id.), Callington	5 2 6	9s.	3 1/2	June, 1864
6000	Kewick (lead), Portlincalse	5 6 6	—	—	Mar. 1862
96	Kilmorrey (lead)	25 0 0	—	—	Feb. 1864
6000	Lady Bertha (cop.) [S.E.]	3 0 6	—	—	July, 1864
3000	Lanivet (tin), [L.] [S.E.]	1 14 0	—	—	Aug. 1864
1019	Lees & St. Aubyn (tin, cop.)	17 6 0	—	—	Feb. 1862
863	Liant Gwylva (tin), Gwylva	2 10 0	—	—	Mar. 1862
240	Lianigon (id.), Gwylva [L.] [S.E.]	30 0 0	—	—	Oct. 1863
4000	Liantwit Yarde (coal), [L.] [S.E.]	4 10 0	—	—	May, 1864
2000	Long Lake (lead), Flint	4 10 0	—	—	Oct. 1863
2000	Lower Park (id.), Denbigh [L.]	3 11 0	—	—	Jan. 1864
6000	Maudlin (copper), Lostwithel	4 2 0	—	—	April, 1864
4480	Merilyn (lead), Flint	4 1 6	—	—	June, 1864
2000	Minera Western Boundary [L.] [S.E.]	9 0 0	—	—	Sept. 1863
5000	Mineral Water (cop.), St. Agnes	2 0 0	—	—	—
5000	Molland (cop.), S. Moulton	2 9 6	—	—	Nov. 1862
1024	Nantes (tin, copper), Ken.	19 0 0	—	—	Sept. 1864
5000	Nantes and Penrhil [L.]	4 0 0	—	—	Fully paid.
4000	Nantes (lead) [L.] [S.E.]	0 10 0	—	—	Sept. 1864
512	Nant Minera (lead), [L.] [S.E.]	6 0 0	—	—	Aug. 1864
6400	Nant-y-Iago (id.), Merioneth	8 17 6	—	—	May, 1863
5000	New East Birch For (tin)	1 0 0	—	—	—
10000	New Cornish (id.)	1 0 0	—	—	—
12000	New Cornish (8000 £1 paid, 4000 £2 1/2 pd.)	1 0 0	—	—	Mar. 1864
6400	N. Crow Hill (id.), St. Stephen	2 12 6	—	—	Aug. 1864
6514	New E. Russell (cop.), Tavistock	0 8 0	—	—	June, 1864
6400	Nether Heath (lead), Durtou	0 18 6	—	—	Oct. 1863
400	New Hendra (tin, cop.), Breage	2 11 0	—	—	Aug. 1864
5400	New Pembroke (tin and cop.)	0 0 0	11 1/2	11 1/2	May, 1864
5000	New Penryn (cop.), St. Agnes	2 0 0	—	—	Nov. 1863
6000	New S. Caradon (tin), St. Cleer	0 16 6	—	—	Dec. 1863
5969	New Treleigh (cop.), Redruth	3 4 0	—	—	Mar. 1864
960	New Trevenen (tin), Wendron	7 0 0	—	—	Aug. 1864
470	Newtownards Min. Co., Down	80 0 0	—	—	—
1024	New Wendron (tin), Wendron	7 0 0	—	—	3 1/2 4 1/2
1024	New Wh. Grylls (tin and cop.)	2 1 6	—	—	May, 1863
4096	New Wheel Lovell (tin)	2 0 0	1 1/2	1 1/2	July, 1864
4096	New Wh. Rose (id. and blende)	0 5 0	—	—	Nov. 1863
400	New Wh. Seton (cop.), Camb.	24 15 0	—	—	July, 1864
6000	New Wh. Vor & Metal Unit. (tin)	0 2 6	2	—	May, 1864
1024	North Buller (cop.), Redruth	26 13 6	—	—	Sept. 1864